An Address:

A REMINISCENCE OF FORTY YEARS.

Being the Presidential Address delivered before the Huddersfield Medical Society on Nov. 13th, 1893,

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GENTLEMEN,—When you did me the honour to invite me to become your President for another term I naturally cast about to see what should be the subject of the inaugural address, and the thought at once attracted my attention that nearly everyone I should be expected to address would belong to a cycle of years much later than my own. The thought in itself was embarrassing, for how could I talk about new methods and modes of practice, and the marvellous improvements developing in every direction, to men fresher from the schools than myself, abler and more nimble witted than I am ever likely to be again? The only advantage I can claim as peculiarly my own is that I can probe the past from personal knowledge and observation much further back than anyone else amongst us. There is a value even in a rambling reminiscence such as I venture to offer you to-night; for "to take stock," as it were, from time to time of what has happened in days gone by is not without its help in enabling us to estimate truly and direct the progress in the present, and it even has its bearing upon the prospects of the future. It is not wise in any department of knowledge, be it history, science, art, or any other, to confine one's attention simply to the present; we should seek to draw wisdom from our stores of the past to influence our actions in the present and our judgments for the future. What should we think, for example, of an artist who concentrated his attention simply upon the methods and works of his own time and school and took no thought of the marvellous skill displayed in the *chefs-d'œuvre* of Titian, Raphael, or Michael Angelo? So with history. If simply contenting ourselves with the records of what is passing around us, how much should we lose for our guidance and instruction? Experience is continually repeating itself; what has happened in the past conveys an inference and a lesson for the future, and we rightly study the facts of the past in order the better to prepare our judgments for the exigencies of daily life. The medical twins, medicine and surgery, demand precisely the same consideration, if we desire to form just ideas of what has led to the greatest progress in their departments. Perfection has not been developed all at once; the soil has had to be prepared; many brilliant investigators and indefatigable workers have toiled for ages before our time and have left the stamp of genius behind them, which time will never efface. Amongst them stands out one, pre-eminent in the surgical world, John Hunter, whose fame will never fade. His fame rests upon his observations, so exact, profound, and numerically large, all invariably the results of experiments conducted to demonstration, and so true that they remain unquestioned to the present time. Many of the ideas refurbished and appearing from time to time as new and original, can be found to date back to his great work, and demonstrated as facts by his direct experiments. The classic works of the past, such as Hunter, Harvey, Sydenham, and, to come to men of later date, Watson should, I think, be made to enter more than they do into the studies of the modern generations of the profession. Not, indeed, to equip them for examination—because for this purpose they would be unsuited,—but in order that they might realise before the conclusion of their studies, the greatness of the intelligence of these worthies of the past, and to how large an extent they have shadowed forth much of the progress that has since taken place. I have often thought of a remark in Sir Astley Cooper's lectures, which struck me greatly at the time I read it. He was speaking to his class upon the ligature of arteries, and he said that for some time he had been endeavouring to find a substance which would answer the purpose of obstructing the artery, but which could be absorbed afterwards by the tissues themselves. He had thought that catgut would probably serve that purpose and had prepared some for the experiments, but he regretted to say that in the case in which he tried it it had too soon dissolved, secondary hæmorrhage had resulted, and therefore it could not be recommended.

If Sir Astley Cooper had lived for another fifty years he would have seen his catgut ligature and the object he then sought to obtain in the most general professional acceptance and taking the highest rank in the progress of surgery. These distinguished men, like brilliant stars, irradiated the intellectual life of their followers for ages and made possible the great discoveries which followed in their train. The mind should be made to contemplate the great superiority of these heroes of the past. The effect is good; it modifies our estimate of self, and helps to encourage that modesty of bearing which is ever a noble feature in the perfect character of all great and good men. When men leave their schools and hospitals with the idea strong in their minds that their education is complete, that they have nothing further to learn, and that from henceforth they exist simply as "a law to themselves," God help the poor fellows, I say, for they will need it all. Such men must deteriorate, for the essential of a noble life is to keep learning and improving, and ever striving after the attainment of greater excellence and truth. To those who desire to maintain continuous improvement medical societies are invaluable. It has been my privilege to be connected with them during nearly the whole of my professional life. During my student life the Physical Society of Guy's Hospital was very attractive, and the debates were replete with interest and instruction both to students and to members of the profession. For "auld lang syne" let me linger for a while upon the old hospital—the home of my early aspirations and my best work. How changed is all there now. "Tempus edax rerum"; so must it ever be, I presume, with all human interests. I sat side by side in the operation room only a few years ago with that charming veteran, beloved by every old Guy's man, and dignified with the affectionate cognomen of "Teddy Cock." I reminded him of the old times when he used to come after dinner with his hands in his pockets and "spectacles bestrid" into the colonnade and chat with us students. He was then over eighty years of age, genial, hale, and bright as ever, with that same delightful stutter, which seemed somehow or other in him to add piquancy to what he said. He seemed to preserve his interest in his profession, in his student friends, and in his *alma mater* vigorously to the last. The case under operation was one of supra-pubic lithotomy in a child. The energy of his remark considerably amused me at the time, that he did not see that this method of operation in children was needed, when the lateral operation gave such excellent results. His conservative tendencies were evidently shocked by the substitution of a new for an old method without, as he thought, any adequate and satisfactory reason. Now he has gone, and nearly everyone of my time has vanished from the scene; Bryant, Wilks, and Pavy alone survive. It was my good fortune to dress for John Hilton—"Anatomical John," as he was sometimes irreverently called. A man very acute, painstaking, skilful, and impressive; with a somewhat bluff, good-natured look he combined a power of sarcasm which he could and did use on occasion. It was by no means the index of a spiteful mind, for his instincts were always generous and just. When laid on pretty thickly it was generally well deserved and did good. As an anatomical teacher he could not be surpassed, for though by no means eloquent his descriptions were perfect, sometimes droll, but then always striking; and they were intimately associated with every variety of medical and surgical application, so that the driest subject became in his hands replete with interest and value.

It is now more than four decades since I settled in Huddersfield, much impressed with the bold beauty of the district, which charms me now even as it did then. Professional life was then simpler; few kept assistants; many rode on horseback, some had phaetons or gigs, but I can remember none who kept a close carriage during my first ten years of practice. It was not because they could not afford it; but they were a hardy race, and little used to self-indulgence. Shortly after coming to Huddersfield I was invited to attend a meeting of the Medical Society of that day. The Society then consisted of two distinct parts—the Medical Library and the Medico-Ethical Society. The meetings were held conjointly; the business of the library being taken first; books were selected and proposed, fines were paid, cases of interest were read and commented upon, specimens were shown, any delinquencies were noted, and generally some wise words from the sagacious old president, Dr. Turnbull, smoothed matters over, and a quiet hint in private, I have little doubt, often helped towards a

better understanding between the aggrieved parties. Inquiry into the history of this Society has not enabled me to trace it further back than 1814; but it would seem that in January of that year the medical men of Huddersfield met together and adopted a code of regulations for the furtherance of the objects of a medical society, which they prefaced by the following resolution: "We, whose names are hereunto subscribed, considering that it is our duty to treat others as we ourselves on a change of circumstances would reasonably expect to be treated, and being desirous to preserve harmony in our professional intercourse with each other, have unanimously agreed to conduct ourselves by the following regulations." The rules which follow breathe the same spirit of mutual consideration and respect, and are framed to guide as a standard for reference on a variety of points likely to occur continually in the daily experience of medical practitioners. A scale for minimum charges and minimum consultation fees in tabular form was also appended. Fifteen gentlemen agreed to adopt these resolutions, and were enrolled as members under the presidency of Mr. Rowland Houghton. In the autumn of the same year the Medical Library was started; beginning in a very small way, it steadily enlarged, and now numbers about 2000 volumes. The Society appears to have worked quietly on unambitious lines till 1825, when it assumed the title of the Huddersfield Medico-Chirurgical Society, and held its meetings monthly in the Dispensary, then in Packhorse-yard, and afterwards at the Infirmary, for the purpose of "discussing medical topics, relating cases, and exhibiting pathological specimens." In 1852 it would seem to have been considered desirable that some more precise rules should be adopted for professional guidance, circumstances having greatly changed since the original rules were formed and the Huddersfield Medico-Ethical Society was called into being. The rules of this Society consisted of six by-laws which disqualified from membership, of a code of etiquette of seventeen sections, and of three sections relating to the adjudication of disputes. I have carefully reconsidered these rules, which seem to me to be admirable. Some could be a little improved and brought more up to date, and others might be added to meet different classes of need; yet, taken in their entirety, they constitute a very valuable standard ethical code. I cannot doubt that a code of laws like these—well conceived, and not unduly harsh and stringent in its personal incidence—would, if generally agreed to and adopted by the practitioners of a district, tend more strongly than any other measure to promote friendship and harmony amongst the body.

It would be a printed standard always at hand to prevent error. Without any intention whatever to do wrong the best of us sometimes slip from want of thought and from not having had the experience to guide us aright in some sudden and unexpected position. Do not let us imagine that rules like these are merely to be used to bring accusations against one another. Their true utility, as it seems to me, consists in their being the accepted law to guide to right action. There is, moreover, a great value in the clear judicially pronounced verdict of a society, uniting all its members in one voice against a grave offender after he has been given every opportunity of stating and defending or reconsidering his position, or, should the case permit of such indulgence, of confessing his fault and withdrawing from his false way. A sentence of ostracism pronounced after such procedure will have far more weight and effect than the partial action of a few individuals, taking the law into their own hands, acting doubtless with the best intentions, but after the "lynch-law" method, without adequate trial, perhaps upon ex-parte information, which may be honest and true, or mistaken, or unduly warped by prejudice and angry feeling. In this sense, also, a society which has sound, established laws to act by is a safeguard to prevent injustice as well as to check wrong. You will naturally ask, Why did this Society with its excellent laws and rules cease to exist? Were it possible for me to do so I would gladly pass this by, but the knowledge conveys a lesson for others as well as for myself. In the early years of the Society the senior physician of the Infirmary, Dr. Turnbull, was a very conspicuous figure; a shrewd, sagacious, upright, and honourable man, and one, too, who exercised a considerable influence in moulding the rules and bringing them to their high standard of excellence. As time went on his force abated, and there were some in high position who rode roughshod through the rules and others who had not the courage of their convictions did not withstand them; so the Ethical Society died, though the library remained. It was eminently worthy of a better fate; a firm determination on the part of the members to support the rules against wrongdoing from any quarter would have broken the despotism and averted the catastrophe. I recommend the members of our Medical Society to consider very carefully these rules of forty years ago, to bring them up to the needs of the present date, to incorporate them as amended in the laws of the Medical Society, and then, and ever after, to defend them to the utmost of their power against aggressions from the highest and the lowest, and to stand firm as a rock by the laws whatever may betide, "sans peur et sans reproche."

In order to bring out another point I must ask you to come back with me again to my first interview with the Medical Society. On being proposed as a member of the library I was invited to subscribe my name to the following resolution. After declaring that each of the members declined to take any clubs or friendly societies, though excepting the case of railway companies' contracts, it was further added, date June, 1846, "That should the clubs and societies attempt to introduce any other medical man into the town for the purpose of counteracting the effect of these resolutions, that a copy of them be forwarded to such medical man, with a strong remonstrance against his acting in connexion with the societies, and should he hereafter refuse to unite with his professional brethren to put down the evils of the system, that he be put out of the pale of the profession and all professional assistance and countenance be refused him." My answer at the time was to the effect that I would rather have my hand cut off than sign such a resolution. I had no particular desire to take club practice, but if one was offered on sufficiently remunerative terms I might not decline to take it. The charges for medical attendance upon the poorer classes made a serious inroad upon their limited earnings, especially in times of prolonged and grave illness, and therefore it seemed to be reasonable that they should combine in numbers, by a certain payment spread over many, to protect themselves against a heavy personal incidence of sickness. If medical men were willing to do this work why should they be threatened with any such penalty? The matter ended here. I venture to think that my action and the ground on which it was based were approved by the best of those present, and as a matter of fact I was the last person asked to sign the resolution. It was explained to me afterwards that club practice had become so laden with abuse in the town that all kinds of underhand practice were resorted to in order to beat down the club practitioner and render his position despicable and disagreeable to the last degree. This assertive resolution was the outcome of an outraged and indignant feeling with which one must sympathise; but the resolution should have been more carefully drawn, so as to allow what was good to remain and extinguish only that which was gross and bad. Medical provision for the working and poorer classes is becoming one of the urgent questions of the day. Formerly the hospitals of our country were entirely pure charities, supported by the contributions of the benevolent, and founded and intended solely for the relief of urgent cases of sickness, accident, and disease in poor people not provided for by the Poor-law and whose circumstances did not enable them to obtain the requisite aid for themselves. These institutions have greatly departed for a long time past from this position. From a variety of causes it has been found to be very convenient to utilise them more abundantly in the service of the community. Wealthy employers, manufacturers, and others gradually began to find out that accidents and cases of illness in their houses and works involved much less expense and trouble to them when their treatment was carried on at a hospital than when under the charge of their local attendant. In many cases, too, the superior advantage and cleanliness of these well-conducted institutions doubtless impressed them as to its being the best arrangement they could make for their unfortunate workpeople. Still, the fact remains that the contributions of the wealthy, which had previously gone in a certain proportion to adequately remunerate the members of the medical profession for the services they rendered, are now taken away from them almost entirely, in exchange for a much smaller amount bestowed upon the hospital where the medical services are gratuitously rendered. Many employers contribute most handsomely to the funds of these hospitals, some greatly in excess of anything they would be likely to be responsible for in the ordinary course of their

business; whilst others content themselves with subscribing a few guineas a year in order to protect themselves against an expenditure of perhaps twenty or thirty times the sum they give. What I wish to show, however, is that this mode of procedure is effected directly at the cost and injury of the medical profession. These are not proper objects of charity at all; sickness, accident, and disease occurring in persons in receipt of good wages or in the service of those who are morally and generally legally responsible ought not to be treated upon charitable lines. Before hospitals were established, and before they were so freely used, attendance upon these cases formed a great item of the professional revenue, which from this source has now nearly disappeared. Every officer in connexion with a hospital feels it to be a point of honour to make it as perfect as he can. Where all are striving after perfection economical procedure stands but a poor chance. Expenses naturally exceed income, and all kinds of devices are had recourse to, to swell the total. Football clubs, charitable performances, theatrical and musical programmes under distinguished patronage, and other paraphernalia, contribute their quota year by year to square the balances and save the ship. The hospital committees, too, come energetically to the rescue, work up the clergy and ministers with their biggest drum, and encourage the working men all they can to contribute largely to the support of the institution. Here in Huddersfield the working classes contribute nearly £1000 a year to the Infirmary—a very noble contribution if given solely to maintain it as a charity; but to entitle them to its benefits on any other ground it would be utterly inadequate.

It is natural that many thus solicited should be led to consider that their contributions ought to entitle them to utilise the charity in their own interest, whereas it would be very unjust to the medical profession were they allowed to do so. They are not proper objects of charity at all, and until they become so they have no title to use the institution. There is a desire in some minds that these institutions should pass out of the domain of charities and be supported by rates and free to all. That this is no idle theory of my own will be seen from the following extract, which I take from a leading article in *The Times* of Oct. 31st last: "It may be answered that if the State sets itself to extinguish these cheap practitioners (who are not always so cheap after all) it must do much more than at present in providing medical and surgical aid for the poor, and must even in the end take over the hospitals. It is possible, though not certain, that this might be the ultimate result, but it is hardly under discussion at this moment. Parliament will hardly be deterred from passing a measure strengthening the hands of the law against rash experiments on the human body by the thought that, little by little, during the next fifty years the public medical service will have to be reorganised."

The nearer these institutions approach perfection the greater is the danger that this aspect of the question will be forced to the front. When the rich and well-to-do come to the conclusion that they will be better cared for in them than in their own homes, can we wonder that they should desire under certain frequent emergencies to seek to enter in? If, therefore, charity fails, as it sometimes seems to threaten to do, to equal the ever-increasing demand the need for the hospital has been shown to be so real, and the advantage so great, that the question of a rate in aid would become prominent. No greater misfortune could befall the medical profession than this change, should it ever come to pass. If our hospitals become converted into rate-aided institutions under the rule of municipal authorities they would probably substitute paid for voluntary service, but the standard of excellence would be irretrievably lowered. Large and vigorous intellects would chafe at, and refuse to be bound by, the stereotyped restraints and red-tape arrangements of a routine business; and the offices would come to be filled by men of lower intellectual calibre, better perhaps adapted in consequence to carry out a system of mechanical routine. The position of the profession under the Poor-law has never been completely satisfactory. Nearly all the great strides which have been made in medicine and surgery have sprung from the general and special hospitals of the country, and not from those under the direction of the Poor-law board or the municipal authorities. It is not to be expected that the men who rule these departments should entertain very exalted views of the requirements of medical service; whereas on the boards of the great medical charities there are usually to be found many large-minded men of cultivation and wide experience, with generous sympathies and practical withal—men who can see beyond the immediate pressure of the moment to a rich and ripe harvest of reward, and who may be trusted to foster and to help forward all efforts, sensible and well directed, that would be calculated to achieve such results. Depend upon it, there is a great danger of these charities becoming municipalised, and the danger becomes more imminent as charity gets overweighted and unable to keep pace with the extravagant requirements of the age. Municipal bodies have enormous masses of work to accomplish; still, they never seem to have enough to do. They seize upon our markets, slaughterhouses, police, gas, water, roads, tram-lines, electricity, baths and washhouses, Board schools, and fever hospitals; will it be very surprising if they try also to draw our hospitals into their net? Were this result achieved medicine would indeed be degraded and its practitioners pauperised. Even now the scholastic profession furnishes us with an object-lesson well worthy of our close attention. It was felt that education was a necessity for all, and in this respect it resembles medicine and surgery. The schoolmasters of the past had their individual liberty; they were able to give free play to their own particular genius of teaching, to their conscientious religious beliefs, and to the special methods they approved most to promote the intellectual, moral and spiritual well-being of the pupils under their charge. But a change came over the scene. Many grew up without education, so education must be compulsory and free to all. Thus the schoolmasters became an integral part of a large machine. School Boards were established in most municipalities, and these were all subject to a central authority. What has been the result to the individual schoolmaster? Scarcely a year passes but some fresh method or plan of work is started, some fresh standard raised, some added requirements or worrying change, and whether the master approves or not he must carry it out with slavish docility. If he be a man of strong religious feeling or principle he must not indoctrinate his pupils with his views under pain of dismissal. He must work automatically, like a machine, in a certain groove, and sink his individuality in the general mass. Is this a change for the better? I think not; so far, at all events, as the schoolmaster is concerned. God forbid that a system of this kind should ever be forced upon the medical profession. This brings me to consider the question in its practical bearings. How are we to prevent this continued abuse of charity which tyrannises over the profession now and threatens to ruin it eventually? We ought to make a great and general effort to detach the working classes and all those who do not need the help of charity from the habitual use of these institutions. To effect this it has always seemed to me that some intermediary system is required between the general practitioners and the pure charity. The club is inadequate; it does not give a sufficiency of choice and its arrangements are too elementary and one-sided. A great difference of opinion exists among medical men as to the merits of what is known as the "provident system." The hospital teacher will dislike it because it would sweep away a large number of interesting cases which would be valuable for illustration to his class. The hospital surgeon will also object, because a great many cases that would otherwise come to him for operation would find their way to other hands. The general practitioner, too, is by no means of one mind in its favour. Many very sensible men, whose opinions I greatly respect, think that it would only open up another mode of robbing the profession. If it were placed upon a proper footing this would not be the case, and I cannot see how it is practicable to check hospital abuse unless there exists side by side with it as its necessary complement a voluntary self-supporting institution to which all unfit cases could be referred. This would drain the charities and they would necessarily lose a considerable portion of the income contributed by the working classes; but it would place the charity upon a more honest footing, and help would be more cordially given by the benevolent public. The history of a model provident institution has yet to be written. All the developments of the system, as far as they have come under my notice, appear to be strikingly inadequate to bring about any satisfactory settlement of this important question. There is a want of sufficient testing of the circumstances of the applicants; they have no graduated scale to meet differences of conditions; they generally select medical officers, instead of throwing the offices entirely open to the profession of the locality, so that all who are so disposed may work in this direction; their fees are very inadequate to the services rendered, and sometimes they lend themselves to be worked simply as commercial speculations. I agree that a provident

system thus worked would be injurious, rather than beneficial, to our body. All the provident institutions at present existing want to be cleared away and restarted on a sounder basis. If the medical men of a district would determine to keep these institutions entirely in their own hands, which they have a perfect right to do, as it is their own work they are disposing of, all difficulties would speedily vanish. Let them start by determining to act with perfect fairness towards each other, giving to every qualified local man who desires to act with the institution the right to do so—i.e., to attend to all those members who wish to engage his services. Let rules and times be arranged in order to simplify labour as much as possible; and let a graduated scale of fees and payments be formed to meet the cases of varying weekly incomes, with a standard line rigidly fixed, beyond which none should be admitted to the benefits of the institution. The strict limitation of membership to a certain wage or property limit should be a *sine quâ non* in every sound provident arrangement; and in like manner the scale of payment required from the members should bear a proportionate relation to the amount of weekly wage or income. Each member should be admitted by a committee which should meet at stated times to consider applications and to decide the rates of payment. With the friendly aid of a good committee it would appear to be a plan that would easily work; it would absorb most of the clubs and remove their objectionable features, it would be an aid to practice, and it ought to be remunerative. I do not suppose these observations will find a responsive echo in every breast. Some are benefited by the present system and construct a reputation by the opportunity it affords. Nevertheless, one ought to think of the *many* of the profession. It cannot be for their good that men and women with good wages should fly to the hospital on the slightest pretexts—viz., for cuts and bruises, simple fractures and dislocations, tapping hydroceles, pairs of spectacles, reductions of herniæ, opening abscesses, and a thousand other similar trivialities which nearly all earning wages ought to be able to pay for themselves. How much more honest and proper would it be that they should be induced to provide this help for themselves rather than be educated to think that there is no discredit in seeking it as a gift of charity!

Circumstances have afforded me the opportunity of seeing a medical charity in a country town district working under exceptionally wise auspices, and being impressed with its merits I take the opportunity of giving a short notice of it. The Whitchurch Cottage Hospital and Dispensary, Shropshire, has now been working for about six years in the midst of a population of some 4000 inhabitants. The cost of working this is about £300 a year, which is met by: charitable subscriptions, £153; hospital collections in churches and chapels, £90; and patients' payments, £55. The land was given by Earl Brownlow, the cost of building and furnishing, about £1300, being raised by subscription. It is a complete little hospital, consisting of eight beds, which are more than sufficient for present wants, though more can be added if needed. The staff consists of matron, servant, and nurse; the servant helping the matron in the nursing as needed, the nurse helping in the dispensary nursing, outside and inside, in operation cases, or when needed. The medicines for the hospital and dispensary are made up by the chemist. About £40 is divided annually amongst the surgeons, as earned, who do the work of the institution. A few of the rules are worth consideration.

"1. Every registered medical man in bonâ fide practice within the parish of Whitchurch shall be invited to be an honorary surgeon of this institution. 2. Patients will be admitted by the committee and must bring with them a recommendation signed by a subscriber and countersigned by a medical man. In cases of accident or immediate urgency no recommendation is required. No person suffering from contagious or incurable disease shall be admitted. 3. Each patient shall pay a weekly sum towards the hospital expenses, the amount of which shall be fixed by the committee in proportion to the circumstances of each case. Such payment shall be guaranteed by a subscriber or other responsible person satisfactory to the committee. 4. Medical men shall be entitled to make their own charges for attendance upon patients in cases where patients are able to pay, but the medical men shall always intimate their intention of so charging to the weekly committee; medical men so charging to supply medicines and appliances.

"*The dispensary.*—The objects of the dispensary are the provision of medical assistance for those whose condition does not require admission to the hospital and who are unable to make such provision for themselves. The following shall not be entitled to the benefits of the dispensary: 1. Persons entitled to medical attendance from any other source. 2. Single men whose weekly earnings amount to 12*s.* per week. 3. Married men whose weekly earnings amount to 18*s.* per week. 4. Domestic servants whose wages amount to £12 a year."

This modest little institution has in a great measure solved the difficult question of medical charity for the district in which it is in. It shows the extent to which charity is allowed to go; beyond the limit the need must be met by provident arrangement or other means. Nothing but good can result to the profession of the locality from its action. The senior medical officer writes to me thus: "When our cottage hospital was first instituted, as senior the greater part of the arrangements were left in my hands. I was at great pains to get the interests of the medical men safeguarded as well as possible, as I perceived there would be great danger of imposition and injustice." Right well has my old friend done his work. It is not to illustrate the provident system that I place these facts before you, but to show how medical charity may be controlled and kept within proper limits. The difficulties in the way of reforming our large hospital charities are enormous. The abuses which cling around them are widely and deeply rooted; public feeling runs strongly in favour of their being made as widely as possible available for all sorts and conditions of men, women and children too; and even the conservative opinions of the profession itself holds with surprising tenacity to the time-honoured procedures of former ages, notwithstanding their deflections from original intentions in modern times. All these influences conspire to invest any modification of the methods of medical charity with peculiar difficulty. Reform must come from the profession itself, and before long, if it wishes to avert revolution. Medical men will be wise to look closely into this subject and to examine it with greater freedom from prejudice than they have done in the past. The effort to be made is in a great and good cause. It is to conserve the true interests of the profession; it is to check the prostitution of charity and prevent its application to undeserving objects; it is to encourage habits of thrift, self-denial and forethought in the masses of the population by teaching them to economise their earnings and to make suitable provision for their daily needs, and thus to cultivate that honesty and independence of thought and character which "makes a man for a' that."

> "A king can mak' a belted Knight,
> A Marquis, Duke, and a' that,
> But an honest man's aboon his might,
> Guid faith he maunna fa' that!
> For a' that, and a' that,
> Their dignities, and a' that,
> The pith o' sense and pride o' worth,
> Are higher ranks than a' that."

THE OPERATION OF LITHOLAPAXY FOR STONE IN THE BLADDER:

WITH SPECIAL REFERENCE TO THE OPERATION AS PERFORMED ON MALE CHILDREN.

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IN the November and December numbers of the *Indian Medical Gazette* of 1883 I published an article under the above heading, with particulars of the first 13 cases that I performed on boys during the period from Feb. 8th to July 24th, 1883. The results of these 13 cases, as well as of those reported by Drs. Keegan, Goldsmith, Freyer, and others, were so eminently satisfactory that I was encouraged to give the operation a more extended trial and to submit every child that applied at the hospital with stone in the bladder to the operation of litholapaxy, rather than to Cheselden's time-honoured operation, provided that I had instruments at my disposal small enough to pass into the bladder. One would have thought that after a perusal of the results of litholapaxy in boys which have been published, a *résumé* of which was given by Dr. Keegan of Indore in an article published in THE LANCET,[1] there ought to remain no doubt whatever in

[1] THE LANCET, May 27th, 1893.

the minds of surgeons as to the best and safest operation to adopt for the removal of calculi in the vast majority of boys that the surgeon meets with. That there does, however, still remain considerable doubt, especially in England, I fancy no one will deny, and I am therefore tempted to publish the results of all the operations that have been performed by me or under my immediate supervision by my assistants at the Civil Hospitals of Jalandhar and Delhi during the last few years—viz., since I commenced to practise the operation on boys. This operation, I may here mention, was first proved to be feasible and strongly advocated by Dr. Keegan, and it has since been almost universally practised in India wherever there have been the necessary instruments available. I doubt extremely whether there are any operating surgeons in India now who ever think of performing any other operation for the relief of stone in the bladder in boys if, as I said before, they have at hand the necessary instruments; and even Dr. Freyer, who has achieved the unequalled success of having performed 191 consecutive lateral lithotomies in boys without a death, has, I understand, now practically abandoned this operation in favour of litholapaxy, for the simple reason that the latter is safer and the cure is infinitely more rapid. This was a most marvellous achievement by Dr. Freyer, but I venture to doubt whether such a result could ever be hoped for again even at the hands of the most skilful surgeon, unless he submitted the most favourable cases only to lateral lithotomy, reserving the less favourable ones for some other operation. It is, of course, very easy to obtain good results in lithotomy and also in litholapaxy if a surgeon rejects the unfavourable cases. There is, however, no reason for supposing that Dr. Freyer specially selected his cases in the lithotomies referred to, and all I wish to make clear is that in comparing the relative merits of the two operations one ought not to judge by the results of either operation in the hands of an individual surgeon, but by the combined results of many operators. In publishing the results of my cases of litholapaxy in children — 89 in number — I do not aim at showing marvellous results, but I simply wish to corroborate as far as possible what Dr. Keegan has for years been trying to prove—viz., that litholapaxy is for the vast majority of calculi in boys by far the best operation, "provided that the surgeon has at hand an ample supply of perfectly reliable and suitable instruments, and that he has learned to use them with judgment and dexterity." Dr. Keegan's words could not be better proved than by the three deaths that have occurred in my practice among boys, all of them being directly due to the want of reliable and suitable instruments and, I will add, to want of experience on the part of the operator, as will be hereafter explained. All three deaths could, in my opinion, have been avoided had I not been handicapped by inferior instruments, but experience has taught me never to undertake the operation till I have provided myself with perfectly reliable and suitable instruments. Of the 89 cases I should mention that among the first 28 which were done at the Jalandhar Civil Hospital a few were performed by my assistant surgeon, Lala Mehr Chand, and that another 3 were done by an assistant surgeon, Lala Mul Chand, at the Delhi Civil Hospital. All these were done under my supervision, and I have included them in my cases for the reason that it would be hardly fair to publish only those that I had done with my own hands, for of course I did not give my assistants difficult cases to perform, they being beginners at the operation, undertaking all the most unfavourable ones myself. To ignore the simple and straightforward cases which were done by my assistants, and which I might, of course, have performed myself, would give an abnormally high death-rate to my cases. It will be seen that among the 89 cases 8 were girls, and as the operation on women and girls is an extremely simple and safe one, for statistical purposes these 8 cases should be disregarded. This would make a total of 81 litholapaxies performed on male children with three deaths. The cures were extremely rapid and satisfactory in nearly all the cases. Of the 89 cases 3 died; one was returned as relieved for the reason that after one stone had been crushed and removed it was found there was still another in the bladder which had a fixed position on the right side and could not be grasped by the lithotrite, the parents of the child refusing to allow lateral lithotomy to be performed; and in one case the result is recorded as "unknown" because the child, though apparently cured of the stone, still had symptoms such as pain on micturition &c. his may have been due to laceration of the urethra during the operation, but as the child never returned to the hospital it is presumed that he became quite well. I wish to draw special attention to the 3 deaths that occurred. The first case was operated on by an assistant surgeon, Lala Mehr Chand. During the operation the hilt of the cannula broke off, and as this was the only one he had which could be passed into the child's bladder all further attempts at extraction by the aspirator had to be abandoned. No doubt a great mistake was made in not performing lateral lithotomy at once, but at that time I had not learnt from experience the absolute necessity of never allowing fragments of stone to remain in a child's bladder. The result was that violent convulsions occurred in consequence of a piece of stone becoming impacted in the mouth of the bladder, and though lithotomy was subsequently performed it failed to relieve the convulsions which shortly afterwards caused death. This death could, in my mind, have been avoided, for there is but little doubt that had the child been cut at once he would have lived, and had there been another cannula small enough to pass into the bladder the operation of litholapaxy could have been completed with every prospect of a successful issue. The second death was due to rupture of the bladder and occurred in an operation performed by myself. This was an extremely difficult operation, the child having a recto-vesical fistula, which necessitated an assistant keeping his finger in the rectum during the whole of the operation to prevent the water in the bladder from finding its way out through the rectum. A piece of stone became fixed in the eye of the cannula. I was unable to dislodge this fragment of stone by the stream of water from the aspirator, and as it appeared to be acting in a valve-like manner—i.e., preventing the water pumped into the bladder from returning into the aspirator, though it was easy enough to force water into the bladder—I removed the aspirator, as the bladder was becoming over-distended, and tried to dislodge the fragment by passing in a wire stylet. While I was doing this the bladder burst, and as the friends of the patient absolutely refused to allow me to open the abdomen all hope of life for the child had to be abandoned. This case taught me a lesson which I cannot too strongly urge on the attention of litholapaxiste—viz., never to try to dislodge a fragment of stone impacted in the eye of a cannula by forcible working of the cannula aspirator. Dr. Keegan, in his article,[2] laid great stress on being provided with proper stylets for all the cannulas one uses, and I can endorse every word he said on this subject. The last death that occurred in my practice also occurred in a patient operated on by myself. This operation was also an extremely difficult one, but there is no reason why it should not have been successful had it not been that the aspirator I was using was out of order—i.e., the indiarubber ball of the aspirator had become rotten owing to the climate of this country and had lost its elasticity to a great extent, so that the return current from the bladder was very feeble and not strong enough to bring the larger particles of stone against the eye of the cannula. The result was that though the bladder, which was enormously hypertrophied, was most carefully searched for fragments of stone none could be discovered, and the child was removed from the operating-table. Two fragments, however, remained, one of which became impacted in the mouth of the bladder and caused convulsions from which the child died, notwithstanding the fact that lithotomy was subsequently performed. I will here draw attention to the invaluable aid to diagnosis of a stone in the bladder which was first brought to the notice of the profession by Dr. Freyer—namely, the click heard against the eye of the cannula during the process of working the aspirator. In this case, had my aspirator not been working so badly, I should undoubtedly have been made aware of the presence of further fragments in the bladder, even though the sound failed to detect them. I have on many occasions found Dr. Freyer's method to be invaluable in detecting the presence of small stones or of fragments of stones which a most careful search with a steel sound has failed to discover. This last death was also in my opinion a distinctly avoidable one, for had I been provided with a duplicate aspirator at the time I need hardly say that I should never have dreamed of using one which was so obviously unfit for use. It was a question whether I should perform litholapaxy or lithotomy in this case. Unfortunately I decided to try the former, not realising that the case was going to be such an extremely difficult one. I have no wish to exonerate myself from blame in these cases, for I fully admit that, had I then had the experience of litholapaxy I now have, it is extremely unlikely that any of these

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deaths would have occurred. In the first case I should have cut at once and would in all probability have saved the child's life; in the second case I should never have allowed the bladder to become over-distended; and in the third case I should not have attempted the operation of litholapaxy with an aspirator which I ought to have known was unfit for use. However, it is not so much by publishing a long series of successful cases that the profession learns to know what dangers to guard against as by making public one's faults and shortcomings in any particular operation; and it is for this reason that I have entered into so much detail over my failures, with a hope that many may gather some useful information therefrom. Since the occurrence of the last death I have procured a considerable number of fresh litholapaxy instruments, which have added greatly to my success, and I have now an unbroken series of 44 successful cases in boys. My supply of instruments, however, is by no means complete as yet, and I can only hope to make it so slowly.

The following table gives a few interesting averages of the 39 operations I have performed:—

	Boys.	Girls.
Average weight of stone...	163·51 gr.	... 213·37 gr.
,, stay in hospital after operation	3·14 days	... 2·10 days
Average age of patient ...	6·30 years	... 4·37 years
,, time occupied by operation	28·40 min.	... 23·00 min.
Mortality	3·70 per cent.	... *Nil*

With regard to the average weight of the stone I should mention that the débris, after being removed from the bladder, was placed in a china dish for about half an hour, so as to allow time for all the particles of stone to settle at the bottom. The water was then carefully run off, and the débris was scraped up and weighed. This is, of course, not an accurate method of weighing the stones, for some allowance ought to be made for the moisture contained in the débris. On looking at the average weight of stones removed from boys' bladders in the last 50 cases published by Dr. Keegan I find that his average weight was only 83·64 gr., but I have heard since from that gentleman that he always weighs his stones the day after the operation—i.e., after the débris has become quite dry. From 15 to 20 per cent. should be deducted from the weight of stones I have removed on account of moisture before any comparison can be made between Dr. Keegan's and my cases. It will be seen on a perusal of some of my cases what huge stones it is possible to remove successfully from the bladder of a boy by means of litholapaxy. In one case I removed a stone weighing no less than 2160 gr. through a No. 12 cannula. The operation took an hour and three-quarters to complete, and I had to apply the aspirator no less than nine times. The boy was only eleven years of age and was in the last stage of exhaustion owing to his long sufferings, and yet he made an excellent recovery and left the hospital perfectly well on the fourth day after the operation. This was, I believe, the largest stone that had been removed by means of litholapaxy from a boy's bladder at that date. Among the 81 boys operated upon there were 21 with stones weighing more than 200 gr. They all made good recoveries with the exception of one. In two cases stones weighing 480 gr. each were removed through a No. 7 cannula, and in three cases stones weighing 700 gr., 607 gr., and 580 gr. respectively were removed through a No. 9 cannula. This will give an idea of the possibilities of litholapaxy in boys, and I venture to doubt whether better results could have been obtained by any other operation when dealing with such large stones as these.

An average stay in hospital of a little over three days speaks for itself. The rapidity of the cures after this operation is perhaps the most striking feature of litholapaxy and cannot be too highly estimated, especially when dealing with the natives of this country, for all who have had to deal with them know the great difficulty there is in persuading them to stay in hospital for more than a very few days. They look essentially for rapid cures and cannot be made to understand the *rationale* of anything like a long course of treatment for any of their ailments.

The average age of the eighty-one boys was 6·30 years. With regard to this I would draw attention to the remarkably large size of the urethra in most boys; in only 4 cases was I obliged to resort to so small a cannula as a No. 6, in a comparatively few cases I used a No. 7, and in the large majority I was able to pass a No. 9 with ease, while in a few cases very much larger cannulas were passed. It is a well-known fact that in the majority of patients the meatus is the narrowest part of the urethra, and in order to enable the operator to pass the largest instrument that the urethra will admit many are in the habit of incising the meatus. In my article published in the *Indian Medical Gazette* in 1888 I pointed out a method that I had been in the habit of adopting for some time, whereby the meatus might be rapidly dilated without the slightest risk of rupturing it. By this means the unpleasant minor operation of incising the urethra becomes quite unnecessary in nearly all cases, the cure is hastened, and the patient's friends (who in this country generally insist on watching the operation) are spared the horror they often evince at the sight of the blood which the incision of the urethra causes. This oozing often goes on more or less throughout the operation, and though unimportant it is sometimes a great annoyance to the operator. The dilatation of the meatus is very easily effected by means of a graduated steel sound which I have regularly used for a long time past, and which I fully described in the above-mentioned article. The point of this sound is made to gradually taper off at the last three or four inches, so that one the size of a No. 13 in the blade would be only that of a No. 14 at the point, and a No. 14 sound in the blade would be a No. 10 at the point. The curve of the sound from the point where it begins to taper off is marked at intervals with numbers corresponding with the number of the cannula, and as soon as the meatus has been dilated to its utmost by the sound the size of the cannula that will be required can be seen. Not only is much time saved by means of these sounds at the beginning of the operation, but the urethra can be safely and rapidly dilated so as to admit a cannula several sizes larger than what could have originally been passed. Among the 81 cases of litholapaxy I have scarcely once had to incise the urethra, and then only because I had not one or two of these sounds or dilators by me. My experience has, however, taught me that when dealing with boys the meatus is not as a rule very much smaller than the remainder of the urethra, while in the adult there is a very great difference between the diameter of the meatus and the urethra in the majority of cases. I have often found that in boys the narrowest part of the urethra is at the root of the penis, opposite the bulb. This narrowing of the passage at the bulb is most often to be seen in children who have suffered from stone for a long time, and it may be due to the fact that they have been in the habit of constantly rubbing and manipulating that particular part of the urethra with their hands, for in children especially the pain is often more severe in that part than in any other. This rubbing would very likely cause the parts to become thickened and indurated, and would thus lessen the calibre of the urethra.

With regard to the time occupied in the operation it will be seen that the average was 28·40 min. to remove an average of 168·51 gr. of stone débris, or about 135 gr. if the 20 per cent. allowance for moisture is made. I find on looking at the figures of the last 50 cases published by Dr. Keegan that he took an average of 32·60 min. to remove an average of 83·64 gr. of débris, which is a considerably slower time than mine; but I know that Dr. Keegan lays great stress on making a careful search for the last fragments. He very rightly says that "five or ten minutes spent towards the close of the operation in searching for the last particles of débris will be well and profitably spent." Though I fully agree with him regarding the advantages of not being in too great a hurry to complete the operation and in directing special attention to extracting every grain of débris from the bladder of a child before removing him from the operating table, I would at the same time urge that in dealing with large stones by litholapaxy it is most important not to waste time over the operation, for there is a limit to the amount of an anæsthetic that even the strongest child is able to bear, and if a beginner thinks that there is no great hurry and that he can with impunity take as much time as he likes over the operation he will most assuredly find sooner or later that his patient's power of remaining under the influence of the anæsthetic used will become exhausted before the stone is removed. I have once or twice had to deal with this complication. It is one which would strain the resources of the most daring surgeon, for it is obvious that the remaining débris cannot be left in the bladder, while at the same time one runs the extreme risk of killing the patient by an overdose of the anæsthetic if the operation be continued. Among my cases it will be seen that there were 6 cases in which the operation took more than an hour to complete. These are as

follow: a stone of 2160 gr. which was removed in an hour and three-quarters; three stones weighing 634 gr., 480 gr., and 320 gr. occupied ninety minutes each; one stone of 700 gr. was removed in eighty minutes; and one weighing 360 gr. was removed in sixty-eight minutes. Among Dr. Keegan's series of cases there were five stones that took an hour or more to remove, the actual time occupied in the operation being sixty-two, sixty-seven, ninety, sixty, and 100 minutes respectively. It must be remembered, too, that the above figures represent only the actual time occupied in the operation, and that the patients had been inhaling an anæsthetic for some time previously. Among my cases there were four patients who suffered severely from the effects of over-anæsthesia, the periods that they were under the influence of the anæsthetic employed being ninety, ninety, thirty-one, and fifty-nine minutes respectively. On inquiry from Dr. Keegan I find that he takes the time from the moment that he begins to crush the stone, while I have been in the habit of timing from the moment I insert the first instrument into the bladder, be it sound, cannula, or lithotrite. Dr. Keegan, though his average time is considerably longer than mine, appears to have had no accidents or trouble from an overdose of chloroform (the drug he almost invariably uses); but at the same time I do not think that it is altogether a safe maxim to instil into beginners that there is no necessity for hurrying over the operation, for in India, as a rule, the surgeon has no skilled chloroformist whom he can implicitly trust to administer the drug, and he generally has to leave this important part of the operation to either an assistant surgeon or often even to a hospital assistant, many of whom have little or no experience in the art of giving chloroform. In most of the operations that I have performed I have had to superintend the administration of the anæsthetic myself while I have been operating on the patient. An experienced litholapaxist like Dr. Keegan might well afford to take his time over the operation and think little of the actual time he is likely to occupy; but I would impress on beginners that there is a limit to the period that a child can be kept under the influence of chloroform or any other anæsthetic, and that it is necessary, therefore, for him to satisfy himself as far as possible beforehand that he will be able to complete the operation within a reasonable time.

Since I commenced the operation of litholapaxy at the Jalandhar Civil Hospital in November, 1887, until the present time (during which period I have been eighteen months on leave in England and was on my return for six months at a station where I had no opportunities of practising the operation), I have had 167 cases, the vast majority of which I have performed with my own hands, the remainder having been done by my assistants under my supervision. Of these, 89 were children and 78 were adults. Among the children there were 3 deaths, as I have already described. Among the 78 adults there were 4 deaths. This gives a death-rate of 3·37 per cent. among children, or nearly one in every 29⅔ operations, and 5·12 per cent. among adults, or about 1 in every 19½ operations. The deaths among the adults were due to the following causes—viz., 1 to syncope shortly after the operation, 1 to diffuse pelvic inflammation, 1 to uræmia, and 1 to suppuration and total disorganisation of both kidneys. In the first case the patient was over sixty years of age and was very infirm and emaciated. For eighteen hours after the operation he did extremely well, after which, while walking across the ward, he suddenly became faint and collapsed. The temperature was found to be 100·6° F., the pulse was imperceptible at the wrist, and in spite of stimulants &c. he died, apparently from syncope, a short time afterwards. No post-mortem examination was allowed, but as the patient was very old and infirm, and as he suffered from no pain or other trouble worth mentioning after the operation, it was concluded that he died from failure of the heart's action. The second case was also that of an old broken-down man fifty-five years of age. Shortly after the operation symptoms of acute pelvic inflammation developed, due probably to some injury to the bladder, and he rapidly sank. No post-mortem examination was allowed. The third death occurred after an extremely difficult operation. The bladder was enormously hypertrophied and the prostate was so large that instruments could only be passed with the greatest difficulty. The stone was extremely hard and took 112 minutes to crush and remove; it weighed 1440 gr. On the day after the operation some small pieces of stone became impacted in the urethra, which, however, were easily removed by a pair of forceps, and the patient after this had no further bladder symptoms, but the temperature remained very high, and on the morning of the fifth day after the operation the kidneys ceased to perform their functions and the patient died the same evening from profound uræmic coma. This man on admission was found to have his urine loaded with albumen, and the case was an extremely unfavourable one for any operation; but as I have never refused to attempt an operation for the cure of stone in the bladder in any patient whom I see at my hospital I determined to give this man his only chance. The patient was more than sixty years of age, and he was completely broken down in health owing to the years of suffering he had endured. The last case was that of an old man seventy years of age, who was emaciated and almost in a dying condition on admission. The urine was loaded with pus and albumen. A stone weighing 670 gr. was removed in twenty-eight minutes without the least difficulty, and the patient had practically no bladder symptoms after the operation, but he became steadily weaker, though the temperature remained nearly normal to the last. He died from exhaustion on the ninth day, having continued to pass a large quantity of pus with his urine ever since the operation. At the post-mortem examination the mucous membrane of the bladder was found to be very slightly congested at the lower part. The prostate was enormously enlarged, especially the right lobe. A small quantity of fine débris was found lying in the post-prostatic pouch. The right kidney was atrophied completely away and was converted into a sac containing purulent liquid. The left kidney was deeply congested and contained several suppurating cavities in its cortical substance. This was, of course, a hopeless case to operate on, and death would inevitably have resulted within a short time even if the operation had not been performed.

Having given every prominence to the fatal cases that have occurred in my practice—viz., a total of 7 deaths in 167 litholapaxies on all ages, or a death-rate of 4·19 per cent.—I would like to draw attention in a few words to some of the more remarkable recoveries. I refrain from publishing particulars of all my cases for fear of making this article unnecessarily tedious and long. I will therefore only give brief notes of some of the more interesting operations. These are as follows: 1. A Mahomedan aged forty-eight years; uric-acid stone weighing 908 gr. was removed in forty-five minutes; there was slight fever after the operation; he was discharged on the sixth day as being quite cured. 2. A Mahomedan aged sixty years; a uric-acid stone weighing 1807 gr. was removed in 126 minutes; there were no symptoms after the operation; he was discharged on the fourth day as being quite well. 3. A Hindu aged fifty years; a uric-acid and oxalic-acid stone weighing 955 gr. was removed in sixty-six minutes; there was some fever for a few days; he was discharged quite well on the eighth day after the operation. 4. A Hindu aged thirty-eight years; a uric-acid stone weighing 1155 gr. was removed in eighty minutes; there were no symptoms after the operation; he was discharged on the third day. 5. A Hindu aged twenty years; a phosphatic and uric-acid stone weighing 900 gr. was removed in forty-nine minutes; he had intermittent fever for several days, but he was discharged quite well on the eleventh day after the operation. 6. A Hindu aged thirty-six years; a uric-acid stone weighing 1333 gr. was removed in eighty minutes; there were scarcely any symptoms after the operation; he was discharged cured on the third day. 7. A Hindu aged fifty years; a uric-acid stone weighing 775 gr. was removed in thirty-eight minutes; there were no symptoms after the operation, and he was discharged cured on the second day. 8. A Mahomedan aged sixty years; a uric-acid stone weighing 1275 gr. was removed in thirty-six minutes; there were scarcely any symptoms after the operation, and he was discharged cured on the sixth day. 9. A Mahomedan aged twenty-seven years, from whom a uric-acid stone weighing 1470 gr. was removed in sixty-five minutes; there was slight fever after the operation, but he was discharged cured on the third day. 10. A Hindu aged twenty-one years; in this case a phosphatic stone weighing 1040 gr. was removed in thirty-eight minutes, and he was discharged perfectly well on the following day. 11. A Mahomedan aged twenty-three years, from whom a very hard oxalic-acid stone weighing 1380 gr. was removed in fifty-four minutes; there was slight fever after the operation; he was discharged cured on the fourth day. 12. A Hindu aged fifty years; a uric-acid stone weighing 1025 gr. was removed in twenty-nine minutes; there were no symptoms after the operation, and he was discharged cured on the second day. 13. A Hindu aged forty-five years, from whom a phosphatic stone 964 gr. in weight was removed in twenty-five minutes; there were no bladder symptoms after the operation.

but the patient on the second day had a very high temperature for twenty-four hours, after which it fell to normal. The patient, however, who was delirious during the fever, never seemed to recover his mental faculty, but continued to be in a demented state, and had eventually to be sent to a lunatic asylum. The total weight of these thirteen stones was 14,987 gr., or an average of 2 oz., 3 dr., 12·84 gr. each.

The operation of litholapaxy has now become so well known among the natives of this part of India that if by any chance this operation is not feasible in any particular case the patients can only with the greatest difficulty be persuaded to submit to lateral lithotomy, an operation which a few years ago was the only one ever thought of for the relief of stone in the bladder. During the period from June, 1891, to July, 1893—i.e., a little over two years—I find that a total of 107 cases of calculus in the bladder have presented themselves at my Civil Hospital at Delhi for treatment. Not one of these cases has been refused operation, though some were almost hopeless from the first. Of these 107 cases, 94 were operated on by litholapaxy and the remaining 13 by lateral lithotomy. Of the 13 lithotomy cases, 1 only was a man forty years of age, 11 were small children into whose bladders my smallest lithotrite (No. 6 in the blade and No. 8 in the beak) could not be passed, and the remaining one was that of the boy on whom I performed litholapaxy, but who subsequently was attacked by convulsions, and upon whom I therefore performed lateral lithotomy to remove two small fragments of stone which had been left in the bladder and which caused the convulsions. The adult was cut by my assistant during my absence, because the stone, which weighed 4 oz. 6 dr., could not be grasped by the largest lithotrite. Of these 13 cases of lithotomy one died—viz., the boy who had been previously operated upon by litholapaxy.

Having now given a full account of all the boys operated upon in my practice by litholapaxy, together with details of some of the more interesting cases of the operation performed on adults, both fatal and successful, I will now compare these results with those of lithotomy and lithotrity as performed by some of the ablest surgeons in England. For the figures quoted here I am indebted to a small pamphlet published in 1880 by Professor Buchanan[3] of Glasgow, which he was good enough to send to me. This was written, of course, before the modern operation of litholapaxy was known. As stated before, the death-rate from Bigelow's operation in my practice has been: among male children, 3·70 per cent., or 1 in every 27 operations; and among adults 5·12 per cent., or 1 in every 19½ operations. Up to the time of the publication of Professor Buchanan's pamphlet Sir Benjamin Brodie had performed 115 lithotrities, with a mortality of 1 in 12. Sir William Fergusson has done 109 lithotrities, with a mortality of 1 in 9, his mortality in 110 cases of adult lithotomy being 1 in 3¼. Sir Henry Thompson in 1878 reported 500 cases of stone operated on in the adult male (the entire number of his operations up to that date). The total mortality was 1 in 8½. Of these, 78 were lithotomies, with a mortality of 1 in 2¾, the remainder (422) being lithotrities, with a mortality of 1 in 13. The total number of cases of these three operators was 646 cases of lithotrity, with a mortality of 53, or 1 in 12¼. Sir Henry Thompson compiled a table with most scrupulous accuracy, showing the results of lithotomy as performed in a number of hospitals taken together. It contained a total of 1827 cases of lateral lithotomy performed on patients of all ages. The total mortality was 1 in 8, the mortality under fifteen years of age being 1 in 15½ and that over fifteen years of age 1 in 5. Professor George Buchanan of the Glasgow University most laboriously compiled statistics of lateral lithotomy in the hospitals of that city, with the following results: From 1795 to 1859 accurate records were found of 159 cases of lithotomy in the male, with 23 deaths, or 1 in about 7 operations. The mortality among boys under fifteen years was 1 in 15¼ operations, while the mortality over fifteen years of age was 1 in 5. From 1859 to 1870 there were 84 cases of lithotomy in the male, with 8 deaths, or 1 in every 10½ operations. From 1870 to 1880 the records of the two hospitals of Glasgow contain 95 cases of lithotomy in the male, with 15 deaths, or a mortality of 1 in every 6½ operations. The mortality under fifteen years of age was 1 in 16½, while that over the age of fifteen years was 1 in 4¾. The total number of lithotomies in the male, without reference to age, in the hospital practice in Glasgow was 338, with 46 deaths, or 1 in 7½ operations. Since the introduction of Bigelow's operation into surgery, lithotrity has, I imagine, become almost, if not quite, extinct, for the reason that there can be no possible object in crushing a stone and leaving the débris in the bladder to find its way out with the urine when the bladder can be completely cleared of all débris by his method. In the year 1880, however, lithotrity was very much in the ascendant, and it was predicted that in a few years it would take the place of the time-honoured Cheselden's operation in the vast majority of cases of stone in the bladder that were met with in surgical practice; but, though lithotrity is practically extinct, lateral lithotomy still holds its own in a certain number of cases where litholapaxy is not possible. A few years ago it was predicted that all boys suffering from stone in the bladder would in the near future be subjected to supra-pubic lithotomy in preference to the lateral operation. It is high time, then, as Dr. Keegan says, for the advocates of the high operation in boys to publish some statistics with figures sufficiently large to prove its superiority over other operations. Dr. Keegan, in the article already referred to, mentioned a grave charge which has been lately made against the medical profession as a body by one of its most distinguished members, in which it is insinuated that statistics published by the profession are as a general rule unreliable and false. One hesitates after such a charge as this to publish statistics at all, for no member of the profession cares to lay himself open to a charge of fabricating his results; but at the same time, if surgeons refrain from publishing the results of their experiences, I fail to see how the profession generally can hope to arrive at any definite conclusions as to the relative merits of any given set of operations. It is with the object of settling the disputed question of the merits of the three different operations for the cure of stone in the bladder in boys that Drs. Keegan and Freyer, and others, including myself, have from time to time published the results of our experiences, but we can have no object in trying to advocate the merits of any particular operation by fabricated statistics. Fortunately in this country there is no struggle for existence among the members of the medical profession such as there is in England, and our only object is to further the advance of medical and surgical science. If the statistics we have published of litholapaxy in boys are false, then most assuredly this operation will sooner or later go to the wall as far as boys are concerned, and some other operation will take its place. Since the operation was first proved to be feasible by Dr. Keegan it has been very largely practised by almost all operating surgeons in India, with the result that it is every year becoming more popular. If the statistics published by various surgeons in India on this operation were really false and unreliable, is it likely that the operation would be steadily gaining ground year by year in a country where stone in the bladder is extremely common and where surgeons have such numerous opportunities for deciding for themselves the relative merits of the three operations practised for its cure?

In conclusion I would like to say a few words about instruments. Dr. Keegan has on more than one occasion drawn attention to the necessity of using only fully fenestrated lithotrites, and I cannot too strongly urge this on the attention of the profession. Again, he lays great stress on the necessity of having every cannula which is used provided with a properly fitting stylet. So far I have unfortunately not had proper stylets for the cannulas I have used, and I have had to employ an ordinary piece of stout wire for the purpose; but, at the same time, I can quite understand the great advantage gained by strictly observing Dr. Keegan's advice—viz., never to insert or withdraw a cannula till it has been fitted with a stylet. Then, with regard to evacuators or aspirators, there are a number of different kinds in use, each of which no doubt has its advocates. Dr. Keegan uses that of Golding-Bird, Bigelow, Sir Henry Thompson, or Berkeley Hill. The latter, which I have not seen, is, he says, a very simple evacuator, very light and handy, and he uses it in some stages of the operation in nearly every case of litholapaxy in boys. For some years past I have been using an evacuator made to order for me by Messrs. Arnold and Sons. It is a modification of that of Thompson by Otis. Messrs. Arnold and Sons have made several of these aspirators for me during the last three years with certain alterations suggested by myself, and I can unhesitatingly recommend them very strongly as the best instruments that I have ever used. The great advantage of them is that they have no valves of any kind to get out of order, and yet it is a physical impossibility for any débris once sucked into the instrument to return into the bladder. They are very simple, light, and handy, and are specially

[3] Lithotrity and Statistics of Lithotomy.

suited for use in India, the fittings being all of metal. The only part of the instrument that is at all likely to get out of order is the indiarubber ball, which can, when required, be easily replaced by another. Indiarubber in this country is apt to become brittle and lose its elasticity, and it is most important to see that the suction power of the instrument is all that it should be.

A CASE ILLUSTRATING THE VALUE OF INOCULATION EXPERIMENTS IN ANIMALS IN THE DIAGNOSIS OF PULMONARY PHTHISIS.

BY THOMAS HARRIS, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY AND LECTURER ON DISEASES OF THE RESPIRATORY ORGANS IN OWENS COLLEGE.

THE careful and repeated examination of the expectoration from doubtful cases of pulmonary phthisis for tubercle bacilli is usually quite sufficient to settle the question whether a patient is or is not suffering from the suspected disease. Occasionally, however, instances are met with where such microscopical examination, although carefully made, leaves the diagnosis of the cases still doubtful It is in such cases that the inoculation of the lower animals susceptible to tuberculosis may render great assistance. This aid has up to the present time been but little employed in this country, probably, partly on account of the necessity of obtaining permission to perform such inoculation experiments. I was recently consulted by the wife of a medical man, in whose case, although the balance of evidence was in favour of the existence of phthisis, the examination of the patient and of the expectoration left me still in doubt as to whether phthisis did or did not exist. The inoculation, however, of two guinea-pigs with the expectoration from the patient gave very definite and conclusive results. The patient was fifty years of age, and I first saw her on May 3rd last. She stated that she had had perfectly good health all her life until three months previously, when she began to feel unwell, to suffer from cough, and to become slightly hoarse. During these three months she had been losing flesh, but had never had the least hæmoptysis. Her husband stated that he had repeatedly taken her temperature both in the morning and in the evening, and for several weeks past it had been about 100° F. in the evening, but for the previous four or five days it had been normal both in the morning and in the evening. She was a fairly healthy looking woman of small stature, weighing 7 st. 4 lb. She complained chiefly of cough, expectoration, and slight hoarseness. She was not really hoarse, but the voice appeared to be a little husky, and she said that it was not nearly so clear as it had been before her illness commenced. The chest was a well-developed one, and on careful examination the only thing which could be detected suggesting any pulmonary lesion was that the left supra-clavicular region appeared to be slightly less resonant than the corresponding region of the right side, but the difference was very slight and one upon which in the absence of other signs very little stress could be laid. On auscultation nothing wrong could be detected at any part of the chest even on the patient coughing. Laryngoscopic examination merely revealed that the vocal cords on phonation did not become perfectly approximated, but there were no indications of any local change in the larynx. The only important fact in her family history was that her father was stated to have died from phthisis at the age of forty-nine years.

On the following day (May 4th) I obtained some expectoration, which was of a muco-purulent nature and which I examined for tubercle bacilli by Gabbett's method. The chief feature revealed by the examination was the presence of an immense number of micro-organisms, which under a one-twelfth of an inch oil immersion lens appeared as cocci or very short bacilli, and which retained the pink stain, as tubercle bacilli would do. These organisms frequently occurred in small groups in small zoogloea masses. There were also some larger organisms stained pink, appearing as short, thin bacilli, being altogether of smaller dimensions than tubercle bacilli as usually seen in sputum. In addition a few bacilli were to be found which, in the absence of the other organisms above referred to, would have been regarded as tubercle bacilli. Although tubercle bacilli vary considerably in size in the sputum I could not help feeling in doubt as to whether some of the smaller organisms (and possibly even the larger ones, which, had the smaller ones been absent, I should have regarded as undoubted tubercle bacilli) present in this expectoration were not simply saprophytic ones which had retained the red stain of the magenta and had not become decolourised by the subsequent treatment with the acid blue solution. Cover-glass preparations were therefore left an unusually long time in the acid solution, but it was found that even after three minutes' immersion the same features presented themselves, the small bacilli and the zoogloea masses of cocci still retaining the pink colour. Two subsequent specimens of expectoration were examined and presented the same features. As I was anxious to be quite certain as to whether the case was one of phthisis or not, Professor Delépine of Owens College, who was at the time engaged in work on the value of experimental tuberculosis in diagnosis, kindly undertook the inoculation of guinea-pigs with some of the expectoration, and he has sent me the following report :—

Report on Dr. Harris' specimen by Professor SHERIDAN DELÉPINE.—The sputum received on May 8th, 1893, after being stained according to the Ziehl-Neelson method, was found to contain, among other things, some long, slender bacilli, some very short bacilli, and numerous cocci. All these were stained with the carbolised fuchsin, like tubercle bacilli would have been, but they were otherwise very abnormal-looking. Two guinea-pigs were inoculated according to the method used in the laboratory under the skin of the left leg at the level of the knee. The sputum was used fresh, and a very small quantity was inoculated in each case. The result was as follows:—Guinea-pig 62 rapidly developed a local swelling, and by the middle of the second week there was a marked enlargement of the inguinal glands on the side of the inoculation. Twenty-one days after inoculation it was killed, and the following parts were found to be affected: the left popliteal ganglion, the third left superficial inguinal ganglia, the left deep inguinal ganglia, the left sublumbar ganglia, the spleen, the liver, the mediastinal and bronchial glands, and possibly the lungs. Bacilli were found to be abundant in the inguinal ganglia, and cultivations of tubercle bacilli were obtained from the spleen. Guinea-pig 63: Twenty-one days after inoculation the swelling of the left inguinal ganglia was as clear as in the other guinea-pig. The animal was allowed to live fifty-two days after inoculation; it was then killed. As in the last case, all the lymphatic ganglia below the diaphragm and on the side of the inoculation were in an advanced state of tuberculosis. In addition to these the axillary and cervical ganglia were also much affected, and the right inguinal ganglia were beginning to be also involved. The lungs were full of typical miliary tubercles. Tubercle bacilli were found in the diseased ganglia in this case as in the other.

In this second experiment, the animal having been allowed to live longer, the tuberculosis had become more general; but the more advanced state of the tuberculous disease around the seat of the inoculation rendered it quite evident that the tuberculosis was the result of the inoculation.

On June 6th I had again an opportunity of examining the patient, and as the result of the inoculation of one of the guinea-pigs was by this time known a specially careful examination of the chest was made. In the interval since I last saw her she had been to the seaside and appeared to be in much better health. She had gained in weight, and looked and felt better; the cough and expectoration were less, but neither had quite disappeared. The examination of the chest revealed no more definite signs than when I first saw her; there was merely impaired resonance at one apex.

I think that in the light of the result of the inoculation of the guinea-pigs there can be but little doubt that the patient is suffering from phthisis, the tuberculous focus being probably a very limited one. The inoculation experiments, of course, do not prove that any of the organisms—the smaller cocci or the larger bacilli—were tubercle bacilli, but they show that the sputum from this patient contained the specific virus of tubercle. Although it cannot positively be said, it seems to be highly probable that the small micro-organisms in the expectoration which stained like tubercle bacilli were those organisms which for some reason or other were unusually small and occurred in a form not commonly seen. In two other cases some years ago I met with similar micro-organisms in some specimens of expectoration, but until the present case presented itself I was unable to satisfy myself that they were in all probability imperfectly developed forms of tubercle bacilli. Micro-organisms occurring in the form of zoogloea masses which were very difficult to stain have been found[1] in the tubercles produced in guinea-pigs by inoculation from a case of tuberculosis of the skin by Malassez and Vignal. The

[1] Tuberculose Zoogleique de Malassez et Vignal, Archiv de Physiologie, Aug. 15th, 1884. Quoted by Cornil et Babes in Les Bactéries, troisième édition, tome ii., p. 468. See also Gastro-Soffia, Thèse de Paris, 1884; Cornil et Babes, ibid.; Eberth Fortschritte der Medicin, March 1st, 1885; Cornil et Babes, ibid.; Nocard, Recueil Vétérinaire, 1885; Cornil et Babes, ibid.; Chantemesse, Annales de l'Institut Pasteur, 1887; Cornil et Babes, ibid.

microbes varied in size from 0·6μ to 1·0μ in length and from 0·3μ in thickness. In the fourth series of inoculation with these organisms the bacillus tuberculosis was obtained.

Of course, experiments like the above depend entirely for their value on the answers which can be given to the following questions: Are inoculations into the subcutaneous tissue of guinea-pigs absolutely reliable? Is it certain that the inoculation of material which is non-tuberculous will not only never itself give rise to tuberculosis in the animal experimented upon, but also that there is no possibility that if the operation is performed by a careful observer with ordinary antiseptic precautions tuberculosis will not arise in direct relation to the seat of inoculation when the material which is the object of the investigation and experiment is non-tuberculous? Another question of less importance than the above should also be capable of an affirmative answer to render such experiments of value to the physician, Will the inoculation of tuberculous material in the great majority of cases, allowing for the possible and unavoidable errors connected with all such experiments, give rise to tuberculosis in such a form in the animal experimented upon as to allow one to say that it results from inoculation and is not a spontaneous tuberculosis? The answer to these questions must be left to the pathologist. It is evident, however, that the balance of evidence at the present time is strongly in favour of the affirmative answer to each of the above questions. We know that the results were questioned by many observers, amongst whom may be obtained in the old and valuable experiments of Villemin mentioned Lebert and Wyss,[2] Simon and Sanderson, Wilson Fox, Cohnheim and Fraenkel, and Waldenburg. These observers produced lesions which they regarded as tuberculous from the inoculation of the most diverse and varied pathological products, and even by the simple introduction of setons. These facts, however, are now almost matters of ancient history, as several of those named subsequently abandoned their position and believed that tubercle could only be produced by a specific virus.[3] Comparatively recent experiments[4] have shown that there was probably some fallacy in the experiments of those who concluded that products other than true tuberculous ones could produce tuberculosis. Where special precautions were taken against the contamination with tuberculous material, in the inoculations with non-tuberculous material negative results were obtained, tuberculosis not being produced. It appears, therefore, that such experiments need to be very carefully performed. It must be remembered that guinea-pigs are very susceptible to tuberculosis, and that when performing an inoculation experiment one must be careful not only that the material with which one is making observations is not accidentally contaminated with any tuberculous matter, but also that all knives and apparatus are thoroughly clean, and that the inoculation wound does not, subsequently to the operation, become inoculated with tubercle from any source.

The view at present held of the value of inoculation experiments for the purposes of diagnosis cannot, I think, be more concisely given than by quoting the conclusions come to by Professor Delépine, and which were communicated to the sixty-first annual meeting of the British Medical Association.[5] "1. The inoculation method is a method of diagnosis capable of giving results free from any ambiguity. 2. The negative results obtained by it are nearly as valuable as the positive results. 3. The positive results give more definite information than the discovery of the bacillus tuberculosis. 4. Results should easily be obtained within two or three weeks." The last conclusion is one of much importance to the physician. In the case above recorded we obtained very definite results in twenty-one days after the inoculation; the animal was at that interval killed, and it was evident that it was markedly affected with tuberculosis, and that such had resulted from the inoculation. I think also that very little difficulty is experienced in agreeing with the remark made by Dr. Sims Woodhead[6] in the discussion following the above-mentioned communication when he said that he was afraid that the question of inoculation for purposes of diagnosis had been too much ignored in this country. It is specially with the object of calling further attention to the possible value of the inoculation of animals in the diagnosis of suspected tuberculous lesions that the above case is here recorded.

[3] Virchow's Archiv, Band xl., 1867.

[2] See Cohnheim, Vorlesungen, Allgemeine Pathologie, 1877, Band i., p. 609, and Die Tuberculose vom Standpunkt der Infectionslehre, Leipzig, 1880, pp. 12 13. Wilson Fox, Treatise on Diseases of the Lungs and Pleura, p. 502.

[4] Dawson Williams, THE LANCET, Dec. 8th, 1883, and Brit. Med. Jour., Dec. 8th, 1883, and Transactions of the Pathological Society, London, vol. xxxv., 1884; Watson Cheyne, the Practitioner, 1883. See also Deutsche Medicinische Wochenschrift, 1882, Band viii., p. 206.

[5] On the Value of Experimental Tuberculosis in Diagnosis, by Sheridan Delépine, M.B., Brit. Med. Jour., Sept. 23rd, 1893.

[6] Brit. Med. Jour., 1893.

A CASE OF

FRACTURE OF THE BASE OF THE SKULL.

BY S. OSBORN, F.R.C.S.ENG. &c.

I VENTURE to publish this case because I believe it to be one of great interest: firstly, from a physiological point of view, in the symptoms which resulted from implication of the eighth pair of nerves, the post-mortem examination showing an extensive fracture extending some four inches and a half in length from the left cerebral fossa downwards and outwards to the anterior and inner part of the posterior lacerated foramen; and secondly, from a surgical aspect, in that a man could walk to his home, a distance of fully a mile, almost unassisted, with such an injury, get over four sets of palings, and on his arrival wash the wound and state that there was no occasion to send for a medical man. After the receipt of his injuries he was lifted upon his feet, and walked about with the idea of his soon becoming better. These facts were elicited at the inquest.

A man aged forty-seven years, to whom I was called at 2 A.M. on Aug. 27th, received in a *mêlée* at about 11 30 P.M. the previous day the following injuries: a lacerated wound one inch long over the left eyebrow extending down to the frontal bone beneath; also a very severe lacerated and contused wound at the back of the head, a portion of the scalp about the size of a shilling being punched clean out and the parts around being much bruised and contused. At the bottom of this wound the skull was exposed, stripped of its periosteum, to the same extent as the superficial wound, and the skull was fractured in an oblique direction downwards and outwards on the left side towards the base of the skull. There was no bleeding from either ear, but some from the mouth, which continued until six in the morning. On my arrival I found him in a semi-comatose condition, in which state more or less he remained for three days. He had passed his motions involuntarily in his trousers.

Aug. 30th.—The patient was able to give a fairly reasonable account of what had taken place. Some slight subconjunctival hæmorrhage showed itself in the left eye, which disappeared completely in two or three days.

31st.—He was seen by one of his friends to-day, whom he recognised and conversed with.

Sept. 1st.—The patient was not so well to-day. He was troubled with much hiccough, which continued without intermission for three or four days. He complained of neuralgic pains extending round both sides of the lower jaw, and of some stiffness of the muscles at the back of the neck, more especially in the upper cervical region. When his head was moved to dress the wound at the back of his head he always complained of acute pain, more especially in this region. He had no difficulty in swallowing; there is no loss of voice. Teaspoonfuls of essence of beef were given him every half-hour, and he took beef tea besides.

3rd.—To-day the man was not so well; he was restless and somewhat excited. He hardly slept at all last night. There was some conjunctivitis of the right eye, supposed to have been due to his having thrown the contents of his bed urinal over himself.

4th.—The patient's sister arrived to-day. He recognised her and was pleased to see her.

5th.—His bowels had not been opened since his accident. Purgatives and enema were given, and after some trouble they were opened by a copious evacuation in the bed, of which he was unconscious. The conjunctivitis of the right eye has disappeared. He rambles at times and counts figures. He got out of bed while delirious and sat in a chair.

6th.—He was comatose and unconscious even when roused, being feverish and bathed in perspiration. The temperature was 102·4° F. He passed his urine involuntarily in the bed. He was in such a critical condition that I informed the police by letter; a magistrate's clerk came the same night, but I considered it useless his attending at the man's bedside.

7th.—He was better to-day, but was still feverish and fancying he saw things on the wall.

9th.—All fever had left him and he was quite conscious. In the afternoon he was able to give a perfectly clear account of all that had occurred at the time of his accident to the sergeant of police who came to take his statement. During the last two days he had complained of some pain at the lower part of his spine, extending round the pelvis, and pain in moving the lower extremities. There was no loss of motion or sensation in his lower limbs; but he was unable to make his right hand act in unison with his left—namely, to bring a pencil in the right hand in contact with a book held in the left,—which was probably due to distorted vision. The pain in his legs, he said, would be better if I would allow him to have an ice-bath. When unwatched he took one of the icebags from his head and threw its contents over himself, and he said it had quite relieved the pain. A magistrate, with other persons, attended late at night, but he was then sleeping, and I did not consider it advisable to allow him to be interviewed and thereby become excited.

10th.—The patient was seen to-day by Mr. Holderness on behalf of an insurance company, and to him he was perfectly clear in his statements. There was some tendency to bedsore on the buttocks.

12th.—I noticed that a little dried blood was present in the left ear. To all appearance the man was going on well. He was somewhat childish in his talk at times, leading me to fear that even if he recovered from the immediate effects of his injuries he would have softening of the brain and deficient intellect. His bowels not having been opened since Sept. 5th, I gave him a drop of croton oil in a teaspoonful of castor oil. He objected strongly to the taste and asked for something to take the taste out of his mouth. The bowels were freely opened without his knowledge in the bed, but yet he was sensible enough to object to such an unpleasant occurrence. During the day he asked me to allow him some beer, of which he said he had "some good bottled beer downstairs," to which I gave consent, but substituted lemonade. He said, after drinking it, "It was very good beer," and asked for more, sucking the lemonade to its utmost drop from the feeder.

14th.—On the whole he was in much the same condition, except that he had some slight cough and difficulty in breathing. In the evening a magistrate attended with the supposed assailant to take his depositions. Probably as the result of distorted vision or deficient vision in the left eye, the patient looked towards me, as I was on his left side, so as to bring his right eye in a line with the accused, who was standing at the foot of the bed, just as a man blind in one eye invariably does. This looking in my direction gave the impression that he identified me as his assailant when he made the remark, "That is the man who struck me." After this it was not thought advisable to proceed with the depositions, although the patient repeated what he had formerly said, and added, "the man who went out last was the one who struck me," the accused person actually being the one to leave the room last.

15th.—The patient died at 1.45 P.M., passing away quietly in his sleep, an icebag to the top of the shaved head and another to the nape of the neck having been kept on throughout the whole period of treatment.

17th.—A post-mortem examination, ordered by the coroner, was made at 11.45 A.M. to-day. Decomposition was greatly advanced. On removing the cranium a large amount of blood was found beneath the dura mater, almost entirely on the right side. An extensive fracture, four and a half inches long, was found on the left side of the occipital bone, extending from the left cerebral fossa downwards and outwards to the anterior and inner part of the posterior lacerated foramen. A large amount of old blood-clot was found above the right orbit in the anterior fossa, and the brain (that part known as the right anterior lobe), lying above this clot, was softened and disintegrated. The remainder of the brain was healthy. The heart and lungs were healthy, the latter being somewhat dark and congested. There was a superficial abrasion of apparently recent date over the left patella. There was an omental hernia on the left side.

Remarks.—The hiccough, lasting for three days, the partial loss of taste, the severe pain at the back of the neck, and the constipation all point to the glosso-pharyngeal, the pneumogastric and the spinal accessory nerves as being each more or less implicated. It is worthy of notice that the pulse continued to be good throughout, and that there was no loss of voice or difficulty in swallowing. The old blod-clot adherent to the right anterior fossa and the bruising and subsequent softening of the right anterior lobe of the brain were the results, I believe, of *contre-coup*, it being on exactly the opposite side of the skull to the injury, and the actual cause of death was the gradual pouring out of blood between the brain and dura mater. The bleeding which occurred during the first hours after the accident was in such small quantity that it could not have come from the left jugular vein, but was probably due to the injury on the right side of the brain, the blood finding it way down into the throat through one of the foramina on that side, and which stopped owing to the formation of a clot; subsequently the blood, still being poured out, collected where it was found at the necropsy—namely, between the dura mater and the right half of the brain. In my opinion the wound over the left eyebrow was occasioned by a blow from the fist, which stunned the patient and brought him to the ground, and that when lying there he was kicked with great violence, the upward kick carrying away the punched out portion of the scalp.

Maddox-street, W.

A SPREADING VARIETY OF NERVE DULNESS.

BY W. HENRY KESTEVEN, M.R.C.S. ENG.

AMONG the most common causes of mental disorder perhaps the most frequent is that of worry, which, as I have elsewhere shown, is simply another form of overwork. Overwork and overstrain of any organ are pernicious in their effects upon that organ. Many and various are the ways by which the nervous system can be overstrained or worried. The result of such is deterioration, qualitative if not quantitative in character. More especially in the present days of fast or rapid living is this the case. Consequently there is more nervous disorder, more mental morbidity, than in days past, when life's stream flowed along with greater placidity. Nowadays, in order to hold his or her own an individual must more or less strain the powers, both of mind and body. Whether in the generations to come there will be increased capacities and powers, whether the race will be able to meet this increased strain, or whether the strain will exceed the powers, remains to be seen. It is a battle—a battle which is not unlike the strife between the guns and armour of modern warfare. To attempt to prognosticate which will win is futile, for time only can show. If one can judge from time past natural selection and the other powers of the evolutionary process will be competent to accomplish the work; but in the process what destruction must take place and how many must fall victims. Has it not always been so? In order to produce the present existing types of life who can say how many types have disappeared—

> "From scarpèd cliff and quarried stone,
> She cries, 'A thousand types are gone.'"

And by the same law multitudes yet must

> "Be blown about the desert dust,
> Or sealed within the iron hills."

One of the earliest phases of nervous deterioration thus produced is seen in what is best called "nervous dulness." Under the above-mentioned influence this affection may be congenital or it may develop during the lifetime. It may be shown by a condition little short of idiocy, or if it be limited to separate parts of the nervous system it may result in deafness, blindness, or any other form of nerve incompetence; or it may be that the entire nervous system suffers in this way, and it is this condition especially which comes under the notice of those to whose lot it falls to deal with cases of incipient nervous disorder. This hebetude of the mind is characterised primarily by its most evident symptom—namely, loss of memory. This is the outward and visible sign, but it is only a sign. The real fault lies in an intrinsic dulling of the faculty of forming perceptions from the impressions derived through the senses. It is in all points parallel to what is seen in old age, the period at which a man has found that there is very little worth noticing in life, and therefore passing events come and go without being recorded on the mental tablets, while things of the past, when life was life to him, still remain vividly impressed. In reality there is no loss of memory—there is loss of the power of attention. When, instead of occurring physiologically as a concomitant of advanced life,

it occurs in early, middle, or in youthful life, it is a symptom which presents considerable gravity of aspect. As is pointed out by Dr. Savage, when a man reaches the age of about forty years there is nothing abnormal in the fact that names, faces &c. escape his attention and so are forgotten; but it is another thing when this lack of attention extends to nearly every passing event, when a man asks the same question day after day, forgets from hour to hour and almost from minute to minute the object of his action, and is unable to recollect the simplest and plainest verbal directions—as, for example, when he starts out to post a letter or send a telegram or make some small purchase and comes back without having done what he intended to do. People thus affected may be able to conduct themselves well enough for ordinary purposes and may to superficial observers or casual acquaintances appear to have little or nothing the matter with them. There is no failure of memory for things long past, and conversational powers may be quite unimpaired; but it is to those with whom they live that their incapacity becomes apparent. Day after day the same question, the same anecdote, the same remark, more or less pithy or obscure, the same joke, and the same Bœotian laziness make the fact only too evident, both to anxious relatives and to medical advisers, that there is something wrong. In actions which from frequent repetition have become automatic—such as playing games which, though requiring muscular skill, do not make much call upon the mental faculties—there may be no marked failure. Tennis, billiards, bowls &c. may all be played fairly well or with very little impairment of skill; but it is curious to note how, in games like whist and chess, where constant attention is necessary, the play becomes what may be called automatic. The patient will follow suit, will return a lead, and will play low as second player or high as third, but he is incapable of the finer touches which require a recollection of peculiarities of play. He will fail to notice that an opponent has played a queen to an ace which he has led, or has given some such indication of poverty in that suit, and will go on in the next trick with his king. It is the same with chess. He will notice the immediate and apparent object of a move, but he will fail to observe the secondary object for which such a move was made and for which it prepares the way. And this is the case even though the patient has been a really good player at either game. Another way in which this same loss of plasticity is signalised is in the carelessness as to the daily responsibilities of active life. While apparently in good bodily health, the subject of this form of disease is content to allow his powers to lie idle and to live upon his friends. He is content to sit in an easy chair with the newspaper and his pipe the whole day long. He may take up a novel, but he never finishes it, and, like a butterfly, he flies from book to book without assimilating any of their contents. Persons suffering from this disease, if possessed of musical powers, whether vocal or instrumental, show in this direction traces of the mischief. The finer touches which give expression to the music and the minuter variations in time and tone which constitute the charm of such performances are lost. Sometimes all idea of time is lost, the result being inharmonious in the extreme. The mental dulness is further exemplified by the blunting of the affections. A man apparently of full animal vigour is content to live away from his wife and finds it a trouble to be shirked when he has to send her a letter. If his children come to see him he is at first delighted, but very soon he is glad to put the baby down and fails to notice it further unless it is to feel bothered by it. It is the same if he is visited by his wife: at first pleased and affectionate, he seems soon to become indifferent, will wander off in an aimless way, and is not grieved when she leaves him, nor does he really object to the separation, though if asked about it and sympathised with he will acquiesce in such condolence and will affirm that it is very uncomfortable, but that his friends thought it was best. Indeed, one of the symptoms which mark this form of mental impairment as such is the utter disregard the patient pays to the limitation of his liberty; he is quite willing in a passive manner that others should act for him. He has no anxiety for the future—in fact, he does not think about it. It is not a trust in Providence or even a Micawber-like belief in something about to turn up—it is simple indifference, sublime in its degree, but painful and in some cases aggravating for friends who fail to recognise its morbid character. Particularly is this the case when it is met with in men or women who have previously been alive to their personal responsibilities. In a further or more advanced condition the patient becomes irritable and suspicious, and from this condition it is not a far cry to that state which brings him within the range of the lunacy laws as a case of dementia.

It must not be supposed that the picture here drawn is descriptive of any one case; the peculiar symptoms described are seldom all to be found in one patient—at all events, in the earlier stages of the complaint,—but more or less isolated or combined these are the principal indications thereof.

The causes of this condition are to be found in an altered or damaged state of the cortical nerve corpuscles, due to defective nutrition. Without positively attaching any undue importance to the fact, it may be interesting to record that the average specific gravity of the nervous substance of the adult brain in fifteen cases of different forms of disease was found to be 1038·38, taking water as 1000. One of these cases happened to be a case of dementia, and the specific gravity of the nervous tissues in this case was 1033. The figures in these cases were obtained by averaging the specific gravity of nervous tissue from the anterior convolutions, the posterior convolutions, the cerebellum, and the central ganglia in each case, and taking the average of the total results thus obtained. The detailed results in this case of dementia are as follows:—

	sp. gr.
Anterior Convolutions, White Matter	1032
,, ,, Grey ,,	1035
Posterior Convolutions, White Matter	1034
,, ,, Grey ,,	1037
Central Ganglia	1030
Cerebellum	1032

The average normal specific gravities are as follows:—

	sp. gr.
Anterior Convolutions, Grey Matter	1035
,, ,, White ,,	1038
Posterior Convolutions, Grey Matter	1037
,, ,, White ,,	1040
Central Ganglia	1038
Cerebellum	1040

The above facts are not without interest, but the data at present are meagre. That nutrition and development have an influence on the specific gravity of the nervous tissues will not be disputed, and it is further borne out by the following figures, which give the average specific gravity of brain tissue from different subjects:—

	sp. gr.
Fœtus, Six Months	1022·25
Fœtus, Seven Months	1022·5
Infant, Full Time (stillborn)	1025
Fœtus, Six Months and a Half	1021·5*
,, ,, ,,	1021*
Infant, Fourteen Months old	1039

* Twins.

The question as to how the defective nutrition is caused in the cases under consideration is not easy to solve; the possible means of attaining this result are known, but there is no positive information as to the actual steps in the process. For instance, it is known that old age interferes with the nutrition of the nerve tissues, and it is known that alcohol and various other poisons by their continued action in some way bring about the same result. But how? It is no answer to say that old age is accompanied by degeneration of the bloodvessels, and hence a diminished or improperly regulated supply of nutrient material; that does not show how the nutrition is interfered with in early adult life, particularly when it is found post mortem that the bloodvessels are not degenerated and that microscopically all that is found wrong is evidence of alteration in the appearance of the nerve corpuscles and in the presence of signs of degeneration in the neuroglia. These also are effects as much as is the outward and visible degeneration of character; but, given the altered nutrition and reasoning from analogy, is it not possible to narrow down the scope of the search to the consideration of one or two possible means by which this altered nutrition may be effected? Either the fault must lie in the composition of the material supplied or in its method of supply—i.e., either in the blood or in the vessels. In old age it may possibly be the vessels which are at fault; but one cannot be sure that the composition of the blood itself may not also be degenerate, and so both factors be active in producing the result. But in early adult life and in youth the result is brought about in some other way. The vessels are not necessarily diseased, but that fact does not free them from possible imputation of connexion with the result. It may be

that, owing to excessive action or inaction of the nerves which affect the calibre of the vessels, the supply of nutrient material may be interfered with without actual abnormality of the vessels; or it may be that the composition of the blood is altered. Now the primary causes hitherto recognised—such as the abuse of alcohol and morphia, sunstroke, &c.—are each capable of producing either of these results, and the solution of the difficulty is no nearer. Thus far we can go, and no further, at present; we can conclude that the change in the nervous tissues is due to defective nutrition, such defect being either in the blood itself or in the vessels.

This fact, however, is far from precluding success in treatment. Proceeding empirically, so to speak, it has been found that this condition, when not too far advanced, is capable of improvement by providing the brain with physiological rest. This is done by completely separating the patient from his accustomed surroundings, by varying as much as possible his modes of life, and by carefully avoiding anything like overstrain of the mind. Even under the most favourable circumstances the restoration takes a long time. The patient must be well fed, and for this purpose, in addition to regular meals, there is nothing better than beef-tea and milk. These should be given freely. As regards medicines, strychnina and phosporus are both useful, and great attention must be paid to the *primæ viæ*. American writers claim that benefit accrues to these cases by the use of galvanism, and others advise massage, but these remedies act chiefly by the mental effect their employment produces; and as in these cases, owing to the mental attitude of indifference, there is little or no effect the benefit claimed is very problematical. There is, however, no doubt that the most potent means that exist of allowing the brain to recover itself are by change of life and change of habits. Hence it is of great importance for those who have charge of the treatment of cases of this nature to inquire most particularly into the life-history of their patients. Such inquiry will generally throw light upon the real secret. Either it will be found that the overstrain which has caused the mischief has arisen during the educational period of life, or is due to a too great indulgence of animal passions, or in mental overwork connected with business, this latter being, perhaps, complicated by the use of stimulants and narcotics taken under the idea that they may in some way be beneficial; or—what is the most common case—a congenital nervous instability has been at the bottom of the breakdown, which may eventually have been accomplished by any of the above causes working upon an organ radically wrong to start with. However, be the cause what it may, it having once been detected, the true therapeutical indication is to place the patient in circumstances as diametrically opposed thereto as possible. For instance, let the case be supposed of a man who, with good physical endowments and a strong animal conformation, has over-indulged the propensities to which that kind of nature inclines him; who, being well educated, has commenced what has bidden fair to be a successful commercial or professional life, but who, while working his brain to the utmost in a mental sense, has also indulged his animal propensities to the full, and probably more than "the full": such a person experiences some severe mental shock, the loss of a friend, a narrow escape of life, possibly a sunstroke, or some accident which prostrates him on a bed of sickness. Thereupon his friends soon begin to detect that his mental powers have deteriorated: he may regain his bodily health, but in some of the ways mentioned above evidence of nervous dulness is manifest. He himself in some degree becomes conscious that he is not equal to his work, and, finally, if he does not, from what looks like mere laziness, neglect his occupation, his occupation neglects him, and he is no longer capable of earning a livelihood. Such a man must, as soon as possible, be placed in changed circumstances. Instead of mental work he must be encouraged to undertake bodily labour; he must give up his animal indulgence and must be made to lead a clean life, with regular rest, regular food, and regular exercise. At first it will be found most difficult to do this. He must be separated from his home, and his old habits must be entirely changed. It may be necessary in some cases to call in the aid of the law in order to attain these ends. In many instances the very complaint renders the patient indifferent to passive change; but it is only by action resembling that of the constant dropping of water which wears the hardest stone that the treatment can be carried out to its utmost extent. And here there is a difficulty extraneous to the patient, or, rather, which bears upon others besides him. That is the element of time. How soon will he be well? is the constant question of the friends, and it is very difficult to make them understand that it will take months, or perhaps a year, before he will be fit to resume his work. It is wrong to promise a cure in a few weeks. It is simply a farce to induce a man to place himself under treatment for a month. It often takes more than a month to induce such a person to follow advice, especially when that advice is to adopt some scheme of life which is repugnant to his inclinations; but it is thus and thus only that alleviation of the symptoms can be hoped for. A man who for twenty or thirty years has, as I once heard an accomplished physician say, "worked one part of his brain till it has become little more than a rag," and has neglected his other faculties, cannot expect that the damage will ever be repaired unless rest—that is, physiological rest—is allowed full scope, and so it is with these cases; but they are not hopeless. Given time to apply the remedy the outlook will be far from cheerless; but the other side of the picture is—dementia.

Hendon.

HEMIANÆSTHESIA AND ATAXY FROM LESION IN THE PONS VAROLII.

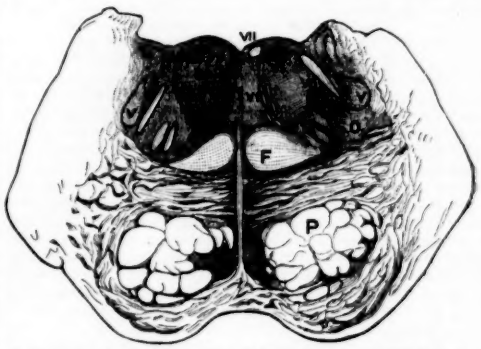
BY HERBERT H. BROWN, M.D., B.S. LOND., F.R.C.S. ENG.

THE patient, a young woman twenty-four years of age, who had enjoyed good health, on April 8th, 1892, while assisting at a school entertainment, suddenly became faint and in rushing towards a window fell to the ground. There was no history of cardiac or renal disease, and there was no evidence of arterial degeneration. After the fall there was no actual loss of consciousness, and she states that she remembers all that took place. When visited an hour afterwards she appeared to be suffering from shock; she could be roused to put out her tongue &c. when spoken to loudly. No conjunctival reflex could be elicited on either side. On the next day (the 9th), on more complete examination, it was found that the right side of the face was completely paralysed as regarded volitional, emotional and reflex movements. Both pupils were contracted. The eyes could not be moved to the right beyond the middle line. There was absence of sensation over the left side of the body and face. Plantar reflex was absent on the left side. There was some difficulty in swallowing and articulation. There was no motor paralysis of the limbs. The knee-jerks were normal on both sides. There was no deviation of the tongue. The temperature was 100° F. The pulse was regular and about 90. Respiration was normal. The conjunctival reflex was now obtainable on the left side, but not on the right. On the following day (the 10th) sensation returned to some extent in the face, but over the left side of the body it was still almost entirely absent. There was internal strabismus of the right eye. During the next few days the patient's condition became much worse. The temperature rose from 101° to 102°. The pulse was more rapid and about 110. The tongue was very thickly coated. The breath was foul. The bowels were obstinately constipated. The patient was drowsy, but complained of pain in the head and in the left arm and breast, which she frequently rubbed. Her speech became quite unintelligible and her power of deglutition was very much impaired, so that feeding became very difficult. The tongue deviated to the right for a few days. After about a week improvement took place: the febrile symptoms disappeared, and the power of articulation and deglutition returned, until after a month or six weeks from the onset she was able to feed herself and to get up. There was well-marked internal strabismus of the right eye, diplopia was much complained of, and there was still inability to move the left eye towards the right, but unaccompanied by strabismus. The facial paralysis remained as before. Sensation had returned to a slight extent on the left side of the face, which was now only slightly impaired, but on the left side of the body and limbs was still very imperfect, both as regarded tactile and painful sensations. On the left hand and fingers there was still entire absence of sensation. Muscular sense appeared to be absent on the left side. The patient was unable to tell the position of the limbs or to hold anything in the left hand unless her eyes were fixed upon it. She was quite unable to pick up a small object or to feed

herself with the left hand. She was able to walk with assistance, but very slowly and unsteadily, and leant over very much to the right side. She could not stand alone. She afterwards improved to a certain extent. She could stand by herself for a short time, and walked with the aid of a stick, but very unsteadily. There was a gradual recovery of sensation, but it remained much impaired, especially in the left hand. The diplopia ceased to be noticeable, and there was some power of movement of the left eye inwards, though the paralysis of the external rectus of the right eye remained. Muscular sense improved, so that she became able to tell the position of her limbs and to hold an object in the left hand with the eyes closed; but there was always great ataxy in all movements of the left hand, and she was unable to pick up a small object such as a pin without great difficulty. The left arm and leg were always blue, cold, and congested when the weather had been at all cold, and she experienced great difficulty in keeping the left hand warm, which also showed a tendency to chilblains. There was a very troublesome ulceration of the right cornea, which continued for many weeks in spite of careful treatment and was accompanied by iritis.

Fifteen months after the onset her condition is as follows: Her general health is good. She has gained considerably in weight, and can walk by herself with the aid of a stick, though with difficulty and very unsteadily. Sensation is present everywhere, but is very deficient on the left hand and fingers. The prick of a pin cannot be localised anywhere on the hand or fingers, and when felt the sensation is delayed. Heat and cold cannot be distinguished on the left side of the body. Tactile sense in the hand is practically absent and is very imperfect over the arm and leg. There is great ataxy in all movements with the left arm. She cannot touch the tip of the nose with the left forefinger when the eyes are closed. She is unable to pick up a pin or perform any delicate operation, and the hand sways about when she attempts to hold it straight out. Sensation in the foot is much less imperfect than in the hand, and the ataxy in the leg is less, though she is unable to stand with the eyes closed. The internal strabismus of the right eye remains as before. The pupils are of normal size and react to light and accommodation. The right eye can now be directed inwards to some extent. The facial paralysis remains absolute, and there is no response to faradaism on the right side of the face. Although she is quite unable to forcibly close the left eye, the lid descends with the right when the eyes are gently closed as for sleep; it does not, however, completely cover the eye, and no effort of the will can close it any further. The knee-jerks are normal and equal on both sides. There is no ankle-clonus. Plantar reflex, though slight on the left side, is obtainable. There is no paralysis of the soft palate on either side.

Remarks.—The diagnosis of the situation of the lesion presents no difficulty, though the nature of the lesion is less clear. The paralysis of the external oblique muscle of the right eye points to a lesion involving the sixth nerve or its nucleus on this side. Since the internal strabismus of the right eye was accompanied by a loss of power of movement of the left eye towards the right it is clear that the nucleus of the sixth nerve, and not the nerve alone, is affected, for it is only in cases in which a lesion involves the nucleus that complete paralysis of the external rectus leading to internal strabismus is accompanied by loss of the conjugate movement of the other eye. The nucleus of the sixth nerve is connected with that of the third nerve on the other side by means of the posterior longitudinal bundle. The facial paralysis on the right side is total for all kinds of movement—volitional, emotional and reflex—and is accompanied by degeneration of the facial nerve, as evidenced by the absence of response to faradaism. It is clear, therefore, that the paralysis is due to a lesion of the nerve itself or of its nucleus in the pons. The fact that the orbicularis oris muscle is paralysed indicates that the lesion involves the nerve and not its nucleus only, for it appears that that muscle derives its nerve supply from fibres which arise at the hypoglossal nucleus but run in the course of the facial nerve. A single lesion involving the facial nerve and the nucleus of the sixth nerve can only be situated in the position indicated in the diagram, which represents a transverse section in the lower part of the pons. In this situation the facial nerve, which is seen cut across twice, loops closely round the nucleus of the sixth nerve, so that a gross lesion, such as embolism or hæmorrhage, which destroyed the one, could not fail to destroy the other. The nucleus of the sixth nerve is situated in the tegmental region of the pons, in which sensation is conducted upwards from the opposite side of the body. It is supposed that impulses of muscular sense are conveyed in the tract of the fillet; if this is so, the lesion must have extended as far forwards as that tract, which lies at the anterior part of the reticular formation. It is obviously a small lesion, since it does not spread in the slightest degree inwards beyond the middle line, nor outwards as far as the fifth nerve, the ascending root of which is situated immediately outside the seventh nerve in the descending part of its course (see diagram). During the first few hours after the onset the conjunctival reflex was absent on the left side, and there was no sensation on the left side of the face. The sensory tract conducting upwards from the fifth nerve of the other side to the cortex, which crosses in the pons considerably above the level of the nucleus of the sixth nerve, must have been greatly interfered with. The immediate effect was probably in great measure due to inhibition, since it passed off in the course of a day or two; some slight interference with sensation has, however, remained, which would lead one to suppose that the lesion extends upwards for some little distance in the reticular formation. The febrile condition which ensued a few days after the onset, and was accompanied by great impairment of swallowing and articulation and deviation of the tongue, &c., was due to the inflammatory reaction which follows hæmorrhage or softening from vascular occlusion, affecting the centres of the glossopharyngeal and hypoglossal nerves, which lie a little below the nucleus of the sixth nerve. It is interesting to note that



L, Situation of lesion. F, Fillet. P, Pyramidal tract. VII, Facial nerve. VI, Sixth nerve. VI*, Nucleus of sixth. V, Ascending root of fifth.

sensation in the hand is now, after more than a year has elapsed, very imperfect, whereas in the lower limbs and trunk it is only slightly impaired; this appears to resemble the condition which follows a unilateral lesion in the motor tract, and would seem to be due to the fact that sensation as well as motor power in the upper limb, and especially in the hand, are almost entirely represented in the opposite hemisphere, whereas in the lower limb the hemisphere of the same side can take a greater share in sensory as well as in motor representation. The muscular incoördination and vaso-motor paresis in the left hand are also interesting. The diagnosis of the nature of the lesion presents a greater difficulty. It apparently, from the sudden character of the onset, rests between hæmorrhage and embolism. The symptoms are common to both. A small hæmorrhage in the pons is not necessarily accompanied by loss of consciousness, and the inflammatory reaction, though more marked in cases of softening, also occurs after hæmorrhage. There is no evidence of cardiac disease which might lead to embolism, or of renal disease or of arterial degeneration, which might render hæmorrhage more probable. The age of the patient (about twenty-four) does not exclude the possibility of hæmorrhage, though embolism is more frequent.

P.S.—Since the above was written there has been very little change in the patient's condition. The muscular incoördination is still very great; the hand sways about on any attempt at movement, and the fingers are flexed and extended like those of an infant, so that for all delicate manipulations the hand is quite useless. She still walks very unsteadily with the aid of a stick. The left hand is bluer and colder than the right when the weather is cold, and sensation is

very imperfect, so that the prick of a pin, though just felt, cannot be localised upon any of the fingers. Dr. Gowers has suggested to me that the lesion may be due to the sudden thrombosis of a small vessel; this, he thinks, is a probable cause of hemiplegia in young adults in whom there is no evidence of cardiac or arterial disease.

Museum-street, Ipswich.

THE PHYSIOLOGICAL EFFECTS OF HIGH FREQUENCY ELECTRIC CURRENTS.

BY W. S. HEDLEY, M.D. EDIN., M.R.C.S. ENG.

MR. A. C. SWINTON'S letter in THE LANCET of Oct. 14th will not only be appreciated by medical men as a valuable contribution to our knowledge of a new and difficult subject, but it will be accepted also as an indication that the electrical expert is willing to aid in the efforts of the profession to decharlatanise medical electricity and to reduce some at least of its problems to a question of sound physics. In referring to an article of mine which appeared in THE LANCET of Aug. 19th, Mr. Swinton correctly states that the view therein adopted that high frequency currents are harmless mainly because of their small current strength is one previously put forward by him in the *Philosophical Magazine* of February last. It might also have been added, and no doubt would have been so had Mr. Swinton been aware of the fact, that before the appearance of the article in the *Philosophical Magazine* I, and before me the *Electrical Review*, had accepted this principle and referred to the "whittling down" of current strength by the various transformations to which it had been subjected as a probable cause of this and many similar phenomena. This seems to be evidenced by an article on the physiological effects of alternating currents published in THE LANCET of Dec. 24th, 1892, and by the pages of the *Electrical Review*. With the knowledge that exists of the surface transmission of high frequency currents along metallic conductors, Mr. Swinton's explanation of the power of such currents to light incandescent lamps becomes a very probable one; but when the human body becomes the conductor there seems to be no good evidence to show how such currents are transmitted unless (and this the present state of the question seems scarcely to warrant) the physiological effects claimed for them are accepted as a proof that they deeply penetrate the organism. This is a question in biological physics concerning which light and leading are still sought for. Mr. Swinton suggests a general law that, apart from some possible minor influences of frequency and abruptness of alternation, the physiological effects of electric currents are mainly proportional to their electrolytic effects. Other things being equal, this is probably true. But it seems to minimise the importance of other factors, and, taken as a law, to fall far short of the facts. As an instance those most obvious of all electro-physiological phenomena, the neuro-muscular effects that follow electric excitation, may be cited. Putting aside for the moment the influence of current density, an old and familiar experiment, in which a voltameter, an interrupting wheel, and a frog à la Galvani ("physiological limb") are connected up in a continuous current circuit, may be considered. With the wheel at rest gas is disengaged and there is no visible muscular contraction. Once the wheel is put into motion evolution of gas nearly ceases, and the muscle is seen to strongly contract. In other words, unless a certain current is made and broken no visible muscular movement occurs. The mere passage of the current, be the electrolytic effect what it may, fails to produce visible contraction. Here motor reaction is proportional to the *variation* of the potential and to the suddenness with which that variation is made, as well as (no doubt) to the strength of the current used. But the question is not even so simple as this. With the "interrupted Franklinic" current there is obtained a maximum motor effect with a minimum amount of sensation—viz., violent muscular contraction with practical immunity from pain. How does current strength help here? If smallness of quantity accounts for the absence of sensory effect it can scarcely be invoked also to account for the marked presence of motor effect. Further, how does such a law cover the phenomena of "make" and "break" and the reversal of the formula in the "reaction of degeneration," or how does it account for those conditions of altered excitability known as "anelectrotonic" and "katelectrotonic"? In these cases there are varying physiological effects with the same current strength. How far the ordinary laws of physics and how far "vital" endowments of living structure account for such phenomena have yet to be ascertained. It would appear that we must still content ourselves with the statement that the effects of electric currents on the body depend not only upon current strength but on the *mode* in which such current strength is presented—i.e., that physiological effects are proportional not only to the *quantity* of electricity but also to its *modality*.

Western-terrace Brighton.

CASE OF ODONTOMA OF THE LOWER JAW; REMOVAL.

BY ALFRED SWANN, M.D., M.R.C.S., L.S.A.,
SURGEON TO THE BATLEY AND DISTRICT HOSPITAL.

THE following case seems to me to be worth recording on account of its rarity. Mr. Christopher Heath says, in his "Lectures on Diseases of the Jaws," that "there are, I believe, but nine cases of this form of odontoma recorded, and these all occurred in the lower jaw."

A woman forty years of age, a weaver, came under my care in the year 1884, with the following history. Shortly before seeing me she received a blow from the "picker" of her loom over the right side of the lower jaw. Soon afterwards a hard swelling formed, which was poulticed until it burst. She then consulted me regarding the sinus in her face, and on looking inside her mouth I found some carious stumps—viz., the canine and anterior bicuspid—which looked as if they might be responsible for the abscess. These I extracted. The swelling, however, became no less, but continued to discharge until September, 1889, when she again consulted me. At this time the tumour had obviously enlarged, and there was a sinus leading down to what felt like roughened bone. I advised her to come into the hospital with a view to making an exploratory operation and of removing any sequestrum that might be found. On admission she was suffering from a tumour the size of a large filbert, situated on the right side of the chin and directly below the position formerly occupied by the canine and anterior bicuspid teeth. At the margin of the chin and below the tumour there was a sinus discharging some thin and very offensive pus. On Sept. 28th, 1889, the patient having been placed under the influence of ether, I made a submental incision, and, turning up the upper flap, found that there was, deeply situated in the substance of the lower jaw on its anterior aspect, a hard dentine-like growth which required the free use of chisel and mallet for its removal. The posterior bicuspid was displaced to some extent, the fang lying obliquely in the jaw, with its crown looking towards the mouth. The wound was washed out with salufer solution and plugged with iodoform and lint. The patient left the hospital cured in about three weeks.

Remarks.—When I had removed the foregoing tumour I was puzzled to know what its nature was, and, after submitting it to various pathological friends and receiving no definite information, I sent it to Mr. Christopher Heath, who at once informed me that it was an odontoma, and he kindly forwarded me his "Lectures on Diseases of the Jaws," where at p. 36 will be found a description of all the known cases that have been reported. The specimen has now found a home in the museum of the Royal College of Surgeons of England.

The patient called to consult me on Sept. 29th last, just four years after the operation, regarding the advisability of having artificial teeth applied. The alveolus had slightly fallen in where the growth existed, but otherwise she was perfectly well.

Batley, Yorks.

SURGICAL AID SOCIETY (BRIGHTON AND HOVE BRANCH).—The first annual meeting of this Society was held on the 28th ult., under the presidency of the Mayor, Dr. Ewart. A most satisfactory report of the year's work was read by the secretary, and the sum received in subscriptions amounted to over £196.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

POTT'S FRACTURE BY DIRECT VIOLENCE.

By W. N. CLEMMEY, M.R.C.S. &c.

A MAN fifty years of age was admitted to the Bootle Borough Hospital on Nov. 7th, under the care of Mr. Wills. He had been working at the docks lifting iron bars, each weighing about 5 cwt., off a pile 4 ft. in height. He was standing close to the pile when one of the bars, accidentally loosened, fell to the ground, striking his right leg a few inches above the outer ankle, throwing him on his left side and pinning his right foot under him. When examined, bruising was noticed on the outer side of the leg at the point where the patient said he was struck, the ankle-joint being swollen, especially on the inner side; the foot was displaced outwards and slightly backwards, the fibula broken 2½ in. above the tip of the external malleolus, and the end of the internal malleolus broken off—in fact, the condition known as Pott's fracture. The interest in this case is that the cause of the fracture is very rare, the same result being brought about by the direct violence of the bar striking the leg on the outer side just above the ankle as usually follows the indirect violence of the well-known street ankle-twist. The patient himself was very emphatic in the statement that the bone broke at the moment the bar struck him, and not owing to any attempt on his part to raise himself from the ground, the bruising found above the ankle on the outer side adding confirmation to this.

Bootle.

HÆMOGLOBINURIA IN A CHILD EIGHT YEARS OF AGE, PROBABLY DUE TO THE INHALATION OF SEWER AIR.

By GORDON SHARP, M.B. EDIN.,

AND

WILLIAM SUMMERSKILL, M.R.C.S. ENG., L.R.C.P., LOND.

CASES of hæmoglobinuria are so comparatively rare that we have thought fit to put upon record the following case which occurred in our practice.

The patient, a girl eight years of age, in comfortable circumstances, had previously enjoyed good health, and there was no history of a previous similar attack. When first seen she was suffering from dyspnœa, her face was puffy and she frequently had a desire to micturate, but six ounces of urine only were passed in the twenty-four hours. The onset of symptoms was rapid, the child having been quite well two days previously. At first the case was diagnosed as acute Bright's disease, although there was an absence of the "Bright" eye, a sign which has been called attention to more especially by Professor Grainger Stewart. The dyspnœa was thought to be due to uræmia, and it was only after the urine was examined chemically and microscopically that the true nature of the disease was discovered. The urine was chocolate-brown in colour and contained a coffee-brown sediment. When it was heated this brown sediment rose to the surface, giving a clue to the disorder that we had to deal with, for hæmoglobin rises to the top when heated in a fluid, while coagulated blood cells fall to the bottom. On applying the guaiacum and ozonic ether test a blue colour was at once struck, showing the presence of hæmoglobin in some form or other. The microscope revealed no casts, only a few red cells entire, but the field was covered with masses of amorphous hæmoglobin. A few red cells with the hæmoglobin partly extruded, some transitional epithelium, and crystals of calcium oxalate were also seen. The absence of casts, the comparative absence of red blood cells, and the presence of a large amount of hæmoglobin made the diagnosis certain. The acute symptoms soon subsided, the patient being convalescent in three days after the onset of the illness, although she was in a very anæmic condition. Day by day the urine was examined for casts, but none were found. A trace, but only a trace, of albumen was detected up to the eleventh day, after which the urine was normal. The hæmoglobin disappeared entirely after the fourth day. The treatment consisted in administering four-minim doses of tincture of digitalis four times a day till the dyspnœa disappeared, which it did by the end of the second day. The intention was to produce diuresis and to strengthen the heart. Milk diet, diluents, warmth, and the recumbent posture were enjoined. The latter was necessary, for on one occasion, when the patient disobeyed orders and sat up, she fainted, most likely owing to the anæmia. After the brown sediment of hæmoglobin had disappeared from the urine and a larger amount of urine was being passed the digitalis was stopped, and three-minim doses of Fowler's arsenical solution were given four times daily, and in a day or two the anæmia disappeared and the child became quite rosy.

The cause of the disease is obscure, but the watercloset pipes of the house had been leaking for a few weeks and a disagreeable smell was perceived, and at the time of the attack the leaking pipes were being taken up and replaced by sound ones, the smell being more than ordinarily disagreeable. It is possible that the inhalation of sewer air was the cause of the rapid and severe disintegration of the blood cells, for sewer air readily affects young children, and noxious vapours cause hæmoglobinuria, although, as far as we are aware, no case has as yet been traced to the inhalation of sewer emanations.

Meanwood-road, Leeds.

A Mirror

OF

HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF CÆSAREAN SECTION IN DEFORMED PELVES; RECOVERY OF MOTHERS AND CHILDREN.

(Under the care of Dr. C. J. CULLINGWORTH.)

IN THE LANCET of Dec. 2nd we gave the notes of a case in which the operation of Cæsarean section was performed in a case of cancer of the cervix uteri. This week we publish notes of two cases in which the operation was performed for contracted pelvis, the estimated true conjugate measurement in the first being 2¾ in., and in the second the pelvis was small in all its dimensions. In a discussion on this subject before the Obstetrical Society, Dr. Cullingworth is reported to have said: "If a vote were taken, all obstetricians would agree that the patient should be advised to undergo Cæsarean section if the conjugate diameter was 2½ in. or under. The majority would most likely be in favour of giving that advice where the conjugate did not exceed 2½ in.; whilst a large minority would be disposed to recommend Cæsarean section under such circumstances if the contraction was even as considerable as 2¾ in. He himself would be found in the last category." At the same meeting it was stated that the maternal mortality after the operation of craniotomy was 6 6 per cent. and after Cæsarean section 8 8 per cent., whilst in the latter the infant mortality was *nil*.

CASE 1. *Cæsarean section in a case of flattened pelvis; recovery of mother and child.* (From the notes of Mr. C. S. Wallace and Mr. P. Northcote.)—A woman thirty-one years of age was admitted to St. Thomas's Hospital on Jan. 28th of this year, in the ninth month of her seventh pregnancy, with a view to having the operation of Cæsarean section performed in the course of a few days. She had suffered from rickets as a child, and did not begin to walk until four years of age. The catamenia commenced at the age of fifteen, and were regular. She was married on Jan. 31st, 1885. Her first child was born at full term on Oct. 30th, 1885. Craniotomy was performed at her own house, and she was in bed for two months afterwards. She again became pregnant at the end of 1886. Labour was induced at the end of seven months, no instruments being used. The child only survived its birth a few hours. Her third pregnancy terminated spontaneously in

an abortion at the fourth month in February, 1888. The fourth pregnancy was terminated by induction of labour at the seventh month in May, 1889. Version was performed, but craniotomy of the after-coming head was necessary before delivery could be effected. There was post-partum hæmorrhage on this occasion, the quantity of blood lost measuring eighteen fluid ounces. Two early miscarriages occurred in 1891. The last catamenial period ceased on May 16th, 1892. The patient on admission was in good health. She had some enlargement of the epiphyses at the wrist and forward arching of the tibiæ. Her height was 4 ft. 10 in. The measurements of the pelvis were as follows:—Distance between the anterior iliac spines, 9¾ in.; distance between the iliac crests, 9¾ in.; measurement of the external conjugate, 6¼ in., of the diagonal conjugate, 3⅝ in., and of the estimated true conjugate, 2⅝ in. The abdominal enlargement extended to the ensiform cartilage. The fœtal movements and heart sounds were distinct. The head of the child was felt above the pubes, its back to the mother's right side, and its breech in the middle line above the umbilicus. The placenta was thought to be implanted on the left side. The operation was performed in the operating theatre at 2 P.M. on Feb. 9th, the bowels having previously been relieved by an enema and the vagina douched with a solution of mercuric chloride (1 in 5000). Labour had not commenced. Mr. C. S. Wallace acted as chief assistant. An incision from 4½ in. to 5 in. long was made in the middle line, commencing 1 in. above the umbilicus. The abdominal wall was very thin. The uterus having been ascertained to be in its normal position, and the edges of the abdominal incision being held closely applied to the sides of the uterus by an assistant, an incision was made in the middle line of the anterior uterine wall, the deeper layers being divided slowly and cautiously to avoid wounding the membranes. There was free hæmorrhage from the cut surfaces; it was easily controlled by digital pressure. The hand was now passed into the uterus, the membranes being ruptured *en route*. The child was extracted by the head, the rest of the body quickly following. The cord having been clamped and divided, the child, which cried almost immediately, was handed to an assistant. The uterus was now brought outside. The placenta and membranes were seized in the left hand and easily removed. The time occupied from the commencement of the operation to the delivery of the placenta was 8½ min. Two fingers were passed through the cervical canal to ensure its patency. The uterus showed no sign of contracting, and there was free hæmorrhage. A subcutaneous injection of ergotin was given, the uterus was well kneaded and compressed, and a hot boracic uterine douche was administered at a temperature of 115° F. These measures checked the hæmorrhage, but they appeared to have little effect in producing contractions of the uterus. Six deep uterine sutures were now introduced. Before closing the wound a second hot intra-uterine douche was given. The deep sutures having been tied a half-deep suture was passed between each two deep ones. The material used for these sutures was silk. The Fallopian tubes were now ligatured an inch or an inch and a half from the free end, which was then cut off; the ovaries were not interfered with. The peritoneum was sponged, but no fluid was found to have entered the cavity. The uterus, still large and flabby, was then replaced within the abdomen, and the great omentum was drawn down over its anterior surface. Soon after its reposition the uterus was felt to contract satisfactorily. The edges of the abdominal incision were united by sutures of silkworm gut. The operation lasted fifty-five minutes. The child, a well-developed male, weighed 7¾ lb. and measured 20½ in. The placenta weighed 1 lb. 15¾ oz. and measured 8 in. by 7½ in. The cord was very thick and measured 22¼ in. in length. The patient made a good recovery, the highest temperature recorded during her convalescence being 100·2° on the seventh and eighth days successively. Some vomiting, accompanied by distension, supervened on the morning following the day of operation, and continued during the whole of that day and the next. Simple enemata were given and morphia was injected subcutaneously without benefit. A large enema was then administered by means of the long tube, with the result of bringing away some fecal matter and much flatus. After this the vomiting ceased and the patient slept. The distension had not entirely disappeared until the morning of the sixth day. The bowels were opened naturally on the eighth day, and on the same day the stitches were removed. On the tenth day the lochia ceased. The patient was moved into the general ward on the twelfth day, got up on the eighteenth day, and left the hospital well at the end of a month. The patient was seen three weeks ago. Both she and the child continue to be in excellent health.

CASE 2. *Cæsarean section in a case of generally contracted pelvis; recovery of mother and child.* (From the notes of Mr. E. A. Saunders.)—A married woman twenty-seven years of age was admitted into the maternity department of the hospital at 2.20 A.M. on Oct. 26th last, being then in labour. The father was said to be about 4 ft. 3 in. in height, his legs being small and his knees very weak. He was stated to have worn leg-splints when a child. No further evidence of rickets in the family was obtainable, but the paternal grandmother and a cousin (on the father's side) of the patient were said to have been exceedingly short in stature (about 4 ft.). The patient stated that she had always had good health. She wore leg-splints from the age of four or five years until she was thirteen. The catamenia, which began at the age of thirteen, were regular and of the twenty-eight day type, the flow lasting for three days. The patient was married on April 16th, 1890. On Feb. 8th, 1891, premature labour was induced at University College Hospital at the seventh month; it was found necessary to deliver the child by craniotomy. There was some laceration of the cervix. She made a good recovery, being out of doors in three weeks' time. She had a miscarriage at the third month in July, 1892, and a second one at an earlier stage in October, 1892. She again became pregnant in February, 1893. Labour appears definitely to have begun at about 5 A.M. on Oct. 25th, though the patient had had occasional pains for a few days before that. She was seen in the evening of that day by the obstetric house physicians, who, finding evidence of considerable pelvic deformity, the os fully dilated, and the membranes unruptured, sent her into the hospital. The patient was exceedingly anxious to have a living child and was quite willing to undergo an operation if it was thought to be advisable. On admission she was a thin, sallow woman, 4 ft. 4½ in. in height. The condition of her skin, hair, and clothing was indescribably filthy. The pregnant uterus formed a tumour of unusually globular shape, protruding in the form of a ventral hernia between the recti abdominis and presenting consequently a very remarkable appearance. The os uteri was fully dilated, and the membranes were unruptured. The child was presenting by the vertex in the right occipito-posterior position, the presenting part being high up and the head freely movable above the brim. Dr. Cullingworth was at once summoned, and after examining the patient he decided to perform Cæsarean section at once. Accordingly, at 3 A.M. the patient was placed on the operating table. Mr. W. L. Wainwright acted as chief assistant. The abdomen having been washed first with soap and water and then with corrosive sublimate solution (1 in 1000), and the urine having been withdrawn, the patient was anæsthetised. An incision about five inches and a half in length was made through the abdominal wall in the median line from the umbilicus downwards. The uterus, which was at once exposed, was brought outside the abdomen and surrounded by hot carbolised sponges. The edges of the abdominal incision were pressed closely against the posterior surface of the uterus during the whole time it was outside the abdomen in order to prevent the liquor amnii or blood from entering the abdomen and the intestines from protruding. An incision five inches and a half in length was then made through the anterior wall of the uterus in the mid-line. The placenta proved to be lying directly under the upper part of the line of incision, and some hæmorrhage then took place. This was soon controlled by partial separation of the placenta and compression of the edges of the uterine wound. The membranes which bulged out through the lower part of the incision were then punctured, the liquor amnii being caught in a vessel. The remainder of the placenta was now quickly separated, the placenta was turned aside on to the abdominal wall, and the child was extracted by the breech. The funis having been quickly tied and divided, the child was placed in the hands of an assistant in order to effect resuscitation, and it soon uttered a cry. The placenta and membranes were then removed and on examination were seen to be complete. On again introducing the hand into the uterus to make sure that there was no blocking of the cervical canal the uterine wall was found to be quite smooth. No swabbing or douching of the interior of the uterus was employed. The placenta was of a large size, but it was thin and flattened. It was attached over a somewhat large area towards the anterior part of the fundus. A hypodermic injection of one-hundredth of a grain of ergotin was given after the removal of the placenta and membranes. The uterus contracted well, and the uterine

wound was then sewn up by means of silk sutures, twelve deep and nine half-deep. Both the Fallopian tubes were ligatured at about one inch and a half from their fimbriated end, which was then cut off. No blood or liquor amnii escaped into the abdominal cavity. The usual amount of hæmorrhage took place through the vagina. The wound in the abdominal wall was then closed with sutures of silkworm gut. The dressings consisted of absorbent wood-wool pads and a many-tailed flannel bandage. The operation lasted for forty-five minutes. The patient bore the operation well, and her temperature shortly afterwards was 98 6° F., the respiration being 22 to the minute. The child, which was a fully developed male, measured 18 in. in length and weighed 6 lb. 12 oz. The patient passed a good night and on the next morning was, under the circumstances, extremely well, her temperature being 98 6°, the pulse 90, and the respiration 22. The temperature rose, however, at noon to 101 2°, and it remained high for eighteen days, when a small collection of pus discharged itself through the lower angle of the abdominal wound. In spite of the temperature remaining high the patient continued to improve from day to day. She was always very bright, cheerful and talkative, and expressed herself as being quite free from pain; her appetite steadily improved. Urine was passed naturally at 8 P.M. on the day of operation and the bowels acted on the following day; the lochia, remarkably scanty throughout, ceased entirely on the sixth day. The patient gave some anxiety on the nights of Oct. 28th and 29th, when her temperature rose to 104°. On the 28th she was ordered four ounces of brandy during the twenty-four hours. By Nov. 2nd she was able to eat fish and a few days later chicken, and on Nov. 5th she was placed upon full diet and port wine. On Nov. 12th she was sitting up in bed and doing needlework, and on the 16th she was able, with the help of a nurse, to stand while her bed was being made. She continued to improve in health and strength, and eventually left the hospital perfectly well on Nov. 25th. She proved unable to nurse the child, which is being hand-fed and is doing well. The measurements of the patient's limbs are as follows:—Upper extremity: from the tip of the acromion to the external condyle of the humerus, 8½ in.; from the external condyle of the humerus to the styloid process of the radius, 7¾ in.; total length of limb, 16½ in. Lower extremity: from the anterior superior spine to the upper border of the patella, 13 in.; from the upper border of the patella to the sole of the foot, 16 in.; total length of limb, 29 in. There was marked genu valgum; when the patient is lying down with the knees approximated and turned with the patella forwards, the internal malleoli are separated by a distance of 12½ in. In walking she is said largely to overcome this deformity. The tibiæ are slightly curved in an S-shaped manner, the upper curve having its convexity inwards. The femora are very slightly bowed, with the convexity anteriorly. There is no enlargement at the ends of the radii or other sign of rickets in the upper limbs. The angle at the juncture of the manubrium and gladiolus is somewhat prominent. The length of the sternum, exclusive of the xiphi-sternum, is five inches and a half. There is some beading of the ribs, this being most marked at the end of the third rib and again at the ends of the lower ribs at the junction with their cartilages. There is slight lateral curvature in the lower dorsal region, the convexity being towards the right side, the centre of the curve corresponding roughly to the level of the lower angle of the scapula. There is no lordosis or angular curvature. The pelvic measurements are as follows:—Diagonal conjugate, 4 in.; distance between the anterior superior spines, 8 in; between the crests of the ilia, 9¼ in.; between the ischial tuberosities, 3 in. to 3¼ in. (?); between the posterior superior spines, 3¼ in.; external conjugate, 6½ in. The pelvis is symmetrical.

Remarks by Dr. CULLINGWORTH.—In the two cases above recorded the operation was performed, not as a matter of absolute necessity, but of deliberate choice. In both cases this course appeared to be justified by the patient's obstetric history, which need not be here recapitulated. In Case 1 the pelvic measurements showed the deformity to consist of flattening of an otherwise under-sized pelvis. The operation was performed under the most favourable conditions possible. The hour was fixed beforehand, so that all the necessary preparations were able to be carried out without hurry or excitement. No steps were taken to initiate labour. It might reasonably be urged that the failure of the uterus to contract satisfactorily after being emptied was due to this omission, but the experience of other operators as well as my own does not warrant such a conclusion. This failure of the uterus to contract quickly has been sometimes attributed to the paralysing influence of the elastic ligature; it could not be so in this case, as the elastic ligature was not used. The sickness and abdominal distension during the second and third days were probably due to the delay caused by the adoption of measures to excite uterine contraction. The sooner the abdomen can be closed the less is the risk of subsequent intestinal paralysis. Case 2 was an example of the less common of the two forms of contracted pelvis usually met with in this country. The pelvis was small in all its dimensions, and delivery by the natural passages would have been rendered doubly difficult by the narrowness of the bony outlet. The high temperature during the first eighteen days was difficult to account for until the escape of a small collection of pus at the lower angle of the abdominal wound showed it to have been due to a localised suppuration. The method of suturing the uterine wound adopted in both cases was that advocated by Dr. Howard Kelly of the Johns Hopkins Hospital at Baltimore—viz., by alternate deep and half-deep sutures, the latter being inserted after the deep sutures have been tied. This method ensures more satisfactory closure of the wound than any with which I am acquainted. In one of the cases the uterus was opened *in situ* and was not brought outside until the child had been extracted. In the other the unusual projection of the uterus almost necessitated its complete exposure at an earlier stage of the operation. The advantages of the former method, where practicable, are that it does not require so long an external incision and that it consequently involves less exposure of the contents of the abdomen. I have performed Cæsarean section seven times, six times for pelvic contraction and once for cancer of the cervix, and all the cases have now been published in detail. It may be convenient to append the references to the other five. They are as follows:—Transactions of the Obstetrical Society of London, vol. xxix. for 1887, p. 252; THE LANCET, Jan. 4th, 1890, and May 17th, 1890; Transactions of the Obstetrical Society, vol. xxxiv. for 1892, p. 89; and THE LANCET of last week.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Aneurysms of Aorta rupturing into Œsophagus.—Rodent Ulcer occurring in the Site of a Birth-mark.—Softening Intracardiac Thrombi.—Hernia of Ovary and Fallopian Tube.—Perforating Ulcer of Duodenum.—Cancer of Stomach and Duodenum.

AN ordinary meeting of this Society was held on Dec. 5th, Dr. PAVY, President, being in the chair.

Dr. VOELCKER showed a specimen of Multiple Aneurysms of the Aorta in which rupture occurred into the œsophagus. The patient was a man aged forty-four who had been a hard drinker, but had had good health till two years previously, when he began to waste and had a cough. For the last four months he had a choking feeling on swallowing and described himself as being starved. On the day of admission he was seized with a choking sensation and fainted when out walking. On recovering he found he had vomited much blood. He was admitted to the Middlesex Hospital under the care of Dr. Coupland. On the day after admission, while using the bed-pan, he became blanched, vomited food and blood, and passed about three pints of black, offensive stool by the bowel. He died one hour and three-quarters later. At the necropsy the internal viscera were found to be anæmic, and the stomach and duodenum were full of blood-clot. The heart was enlarged, and the posterior layer of the pericardium bulged forward by an aneurysm of the thoracic aorta. The aorta was extensively atheromatous and dilated in the arch and thoracic portion. A saccular aneurysm the size of a small orange projected from the concave side of the arch at its middle. It did not compress the air passages, but the left vagus recurrent nerve was adherent to it. There was very little clot in the sac. Four and a half inches beyond the origin of the left subclavian artery there was a larger aneurysm measuring four inches in length and three inches across. The upper and left part of the sac was pouched and adherent to the bodies of two dorsal vertebræ; the latter were partly eroded. The main part of the sac projected to the right, and the left vagus nerve was adherent to the sac. The œsophagus was adherent to the aneurysm, which had ulcerated into its posterior wall two inches above

its cardiac end, by an oval opening one inch and a quarter long blocked by pale clot. The aneurysm contained firm laminated clot on its right side, and the aorta beyond it was not dilated. There was no evidence of syphilis in the internal viscera. Dr. Voelcker brought the case forward as an example of multiple aneurysms of the aorta and mentioned that in thirty-eight necropsies on aortic aneurysms made at Middlesex Hospital during the last ten years there were four cases in which they were multiple, but in three of these they were close together and situated in the arch or just at the commencement of the thoracic aorta. In the fourth case one was thoracic, the other abdominal. Another interesting point was the situation of the aneurysm, for of the thirty-eight cases referred to thirty-three were intra-thoracic, and twenty-seven of these were in the arch of the aorta. Of the other six only one was situated below the middle of the thoracic aorta. Rupture into the œsophagus occurred in three of the thirty-eight cases, but in all three the aneurysm was situated in the arch or within two inches of the origin of the subclavian artery, and the seat of perforation had been opposite the bifurcation of the trachea. Rupture into the œsophagus so low down appeared to be very rare.

Mr. BIDWELL showed a specimen of Rodent Ulcer occurring in a "Birth-mark." It was removed from a woman aged seventy-two. The "birth-mark" was warty and evidently a congenital mole. On microscopic examination of this mole close to and some way from the ulcer there was found enormous hypertrophy of the sebaceous glands. This was considered evidence that this form of rodent ulcer was carcinoma of the sebaceous glands. Sarcoma in congenital mole was not uncommon, but carcinoma, especially of rodent ulcer form, was rare.—Mr. GOLDING BIRD said that the fact that Mr. Bidwell had used the terms "rodent ulcer," "rodent cancer," and "carcinoma" to designate this particular condition demonstrated better than he could have hoped to do the depth of the confusion in which we were in respect of this subject. Pathologically he believed there was no such thing as rodent ulcer; indeed, rodent ulcer was a clinical and not at all a pathological term. It was described by Jacob of Dublin as long ago as 1827 to be "an ulcer slow of growth occurring in persons well on in life, somewhere between the mouth and the brow, slowly eroding the tissues, even the bone, not accompanied by any lymphatic enlargement, and not itself the seat of any local thickening"; but there were a number of ulcerative processes occurring within this area which came more or less within the terms of this description, which were nevertheless in no sense rodent ulcer, and the designation had been applied without discrimination to all chronic ulcerative processes of that area of the face irrespectively of the presence or otherwise of thickening. It would be well if the Pathological Society could undertake to state authoritatively whether there was or was not such a thing as rodent ulcer which was not epithelioma or cutaneous carcinoma.—Dr. KANTHACK thought the last speaker was not justified in attempting to distinguish between epithelioma and cutaneous carcinoma, for epithelioma was distinctly a form of carcinoma The term "Nester," which was first used by Professor Virchow to designate the peculiar formations met with in epithelioma, had possibly led to a confusion of ideas. This term in German meant alveoli, but from its resemblance to nests it had led to the characteristic importance which he attributed to "Nester" being transferred to nests undeservedly. The nests, in fact, were not in themselves sufficient to enable observers to distinguish between sarcoma and carcinoma. The best term would be "cancroid," as originally suggested by Professor Virchow.—Mr. BOWLBY, though he admitted rodent ulcer to be an unsatisfactory term to apply, did not share the difficulties experienced by Mr. Golding Bird in respect of this nomenclature. Whatever it might be called, the condition was a clinical entity easy to recognise. As to its place in pathology, it should be classed among the carcinomata, for alveolation was always a marked feature in typical cases of rodent ulcer. Mr. Bird mentioned that he had met with various kinds of cells in these ulcers, but he only referred to one variety—the squamous. If he were to bring the preparations in which other cells were to be seen before the Society they would be in a position to discuss the question raised by him. Rodent ulcer differed from epithelioma in several points: in its position, its being in the dermis, the cells being polygonal, &c., and not flat as in epithelioma; and although imperfectly formed cells might be found, as in all papillomatous growths, these never developed the keratinoid changes seen in epithelioma.

Dr. R. E. SCHOLEFIELD showed two cases of Multiple Thrombi in the Left Ventricle of the Heart. The intra trabecular spaces were crowded with a number of white cyst-like bodies, separated from their bed with great ease and leaving unaltered endocardium below. The contents when fresh were indistinguishable by the naked eye from pus and under the microscope differed only by the presence of some detritus. They contained, too, in the fresh state masses of micro-organisms—apparently staphylococci. One case was secondary to scarlet fever and chronic pyæmia. The other, in which some calcification had taken place in one of the fibrinous masses, occurred in a patient who died of phthisis.—Dr. VOELCKER said that he had met with the condition described by Dr. Scholefield. He obtained the specimen from a woman aged sixty-six, who died from the effects of a large sarcoma involving the frontal sinus. There were no secondary deposits. The heart was somewhat dilated, but there was no trace of endocarditis. The existence of these cardiac polypi had long been recognised, and there were several examples of them in the museum of the Middlesex Hospital. He recorded a case last year showing that in some cases vascularisation took place in the clot instead of softening. Dr. Delépine also showed a specimen of cardiolith in which the process of vascularisation could be traced. The ease with which the bodies shelled out made it difficult to believe that they had anything to do with any change primarily in the endocardium.—Dr. CHARLEWOOD TURNER was confident that these clots depended on some slight lesions of the endocardium. It was common to find in cases of slowing of the circulation white gelatinous clots, which sent processes along the columnæ carneæ and so seemed to stick to the endocardium, though in reality they had no connexion with it. The other kind were like little granulations and belonged to a different category, being usually associated with endocarditis. They were probably attributable to great stretching of the cavities and consequent slight disturbance of the epithelium in the pouches, where the stretching would be most severe. Similar conditions in the pulmonary artery had also been seen.—Dr. SCHOLEFIELD, in reply, said that the clots on the two sides of the heart were very different; on one side the clot was firm and adherent, and on the other it was very easily detached—so slightly adherent, in fact, that one could hardly believe that the clots had formed consequent on injury to the endocardium. It was difficult to conceive that such widespread adhesions could be caused except by trophic changes, and there was no evidence of such changes in the endocardium.

Mr. LOCKWOOD showed a specimen of Hernia of the Ovary and Fallopian Tube which he had met with whilst performing the operation of radical cure of an inguinal hernia of the left side in a young woman. The ovary and fimbriated end of the Fallopian tube lay in a large sac which communicated freely with the peritoneum and extended into the left labium. The ovary could not be felt with certainty and was not diagnosed. It was attached by a mesovarium half an inch wide to the back of the sac. There was a fossa at the back of the sac which simulated an ordinary ovarian fossa, such as was found in the human subject, but which was better marked in some animals. The ovary itself was small, with a smooth surface, and had not probably ever been functionally active. At the upper end of the gland was the fimbriated end of the Fallopian tube, but only an inch of that canal was persistent, the rest being absent. The part of it which existed had a lumen and was smaller than normal. A large hydatid of Morgagni hung from the tubo-ovarian ligament, and a thickening seemed to indicate an organ of Rosenmüller. Upon the back of the sac there was a quantity of muscular fibres, which had probably had an important part in the formation of the sac. Another specimen of an inguinal canal was shown in which a band of muscular fibres ran from the labium to the lowest end of a pointed sac. A third specimen of hernia of the ovary and tube was shown to illustrate that condition in which the herniated organs lay in a sac, cut off from the general peritoneal cavity. Mr. Lockwood concluded by saying that such specimens might be expected to be frequently met with in the future, as young women were always anxious to have their herniæ cured by operation.

Dr. PYE-SMITH read a paper on Perforating Ulcer of the Duodenum. The patient was a man aged twenty-three, strong, and well-nourished. There was only an indefinite history of slight dyspepsia. There were no symptoms until within a fortnight before death. They recurred at intervals without interfering with his work. Ten days later he had a very severe attack of vomiting, with

blood, and acute abdominal pain. This was followed by symptoms of peritonitis, which was thought to be due to some perforation; but after consideration surgical interference was considered to be inadmissible. The patient died from peritonitis. At the necropsy a circumscribed cavity was found leading to a small, clean-punched ulcer in the first part of the duodenum. In addition to the perforating ulcer, two slight half-healed ulcers were found close to it in the duodenum. Dr. Pye-Smith alluded to the close relationship between duodenal and gastric ulcer—so close, indeed, that they were indistinguishable either pathologically or clinically.—The PRESIDENT pointed out that in the first part of the duodenum the secretions of the stomach would act on the walls of the duodenum in precisely the same way as they would on the stomach itself, since they had not yet been altered by admixture with the juices that entered lower down.—Mr. LOCKWOOD asked whether the ulcers were on the back of the duodenum. He had recently twice opened the abdomen for septic peritonitis due to perforating ulcer of the duodenum, and in one case the ulcer was at the back where it could not be reached.—Dr. PYE-SMITH added that the ulcer was on the upper part of the duodenum, but as they had the greatest possible difficulty in finding it post mortem he did not think it could have been reached by operation.—Dr. GALLOWAY remarked that the situation of the ulcer had much to do with the chronicity of the affection. Several cases were on record in which the adhesion had formed and the ulcers had practically healed. This was especially likely to happen if the ulcer was situated on the posterior wall behind the peritoneum.

Dr. PYE-SMITH showed a specimen of Cancer of the Stomach and Duodenum from a patient admitted during the preceding week to Guy's Hospital with severe vomiting of blood and marked emaciation. His age was fifty-three, but he appeared to be at least ten years older. He did not look like an intemperate man, but as a matter of fact he had been a continuous spirit-drinker. The diagnosis was that of carcinoma of the stomach. After death an ordinary characteristic carcinoma of the stomach was found; before death, however, his vomit assumed a very fæcal character, and he concluded that there must be a fistulous opening into the colon; but no such lesion was found after death. There was a second tumour in the duodenum, which was also carcinomatous, just on the opposite side of the pylorus. He referred to the fact that it was very rare for a secondary deposit to form in the same organ as the primary growth, and he asked whether the duodenal cancer was to be regarded as another primary growth or as a secondary deposit.—Mr. SHATTOCK mentioned that in some recorded cases of cancer of the stomach secondary deposits were found lower down in the digestive tract, and in cancer of the œsophagus secondary growths had been found in the stomach.

Card specimen.—Mr. WARRINGTON HAWARD: Stomach and Jejunum five days after Gastro-jejunostomy.

PROVINCIAL MEDICAL SOCIETIES.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Nov. 23rd, the President, Mr. RICHARD FAVELL, being in the chair.—Mr. SNELL introduced the following cases: 1. A man who had been shown at a previous meeting with an Indurated Lacrymal Gland. Opinions varied then as to whether it was inflammatory or malignant; the history rather pointed to the former, and the patient was introduced again because the tumour was disappearing. 2. A case of Conical Cornea well marked. 3. Double Microphthalmos.—Dr. COCKING showed a case of Myositis Ossificans. The patient was a stonewaller sixty-three years of age. In the upper part of the thigh a bony mass extended for seven inches along the course of the sartorius. There was distinct swelling in front of the hip-joint, the movements of the joint being more free than normal and accompanied by grating. The presence of distinct signs of locomotor ataxy suggested Charcot's disease as a cause of the condition of the joint.—Dr. BURGESS showed: (1) a man aged forty with Tremors of the Lips and Tongue, Tremulous Scanning Speech, Epileptiform Fits, Mental Depression, Optic Atrophy, and greatly exaggerated Knee-jerks; there were signs of past iritis and other evidence of syphilis; and (2) a case of Sensory Aphasia with Alexia (but not agraphia) and Right Hemianopia.—Dr. HUGH RHODES exhibited the stomach of a domestic servant aged twenty-two with a perforation in its anterior wall. She had done her usual work up to the day before her death, complaining only of occasional bilious attacks and amenorrhœa. There was no history of hæmatemesis. Death seemed to have occurred from five to six hours after perforation.—Dr. KNOX showed a healed Aneurysm of the Transverse Arch of the Aorta of a man who died from fatty heart.—Dr. BURGESS showed: (1) a small-celled sarcoma which, originating in the anterior mediastinum, had invaded the left lung and travelled down the great vessels to the interior of the pericardium; and (2) a Syphilitic Liver divided into many lobules by numerous cicatrices, Amyloid Spleen, Kidneys and Bowel from a girl ten years of age who showed no other signs of syphilis. There was no trace of suppuration.—The PRESIDENT showed a vaginal cyst of the size of a hen's egg which he had removed from an unmarried woman thirty-five years of age. The cyst had been extruded from the vagina eighteen years ago during an epileptic fit and had remained outside. It grew from the anterior vaginal wall. He also related a case of Acute Axial Rotation of a Parovarian Cyst. A single woman aged twenty-six years, who was known to have had a small ovarian cyst, was seized during the night with severe abdominal pain, accompanied by sickness. Five days afterwards abdominal section was performed. The pedicle was found to have rotated a turn and a half from without inwards. The symptoms coming on when the patient was in bed pointed to the rotation being caused by the cysts becoming extruded from the pelvis and passing above the brim when the woman was in the recumbent position. There was no history of a fall or sudden shock. The patient made a rapid recovery.—Dr. CLEAVER read a short communication on the Hypodermic Administration of Ergotin in Epistaxis.—Dr. MARTIN showed a specimen of Dermoid Cyst of the Ovary which he had removed by abdominal section from an unmarried domestic servant twenty-eight years of age. She complained for about a year of abdominal pain on exertion, pre-menstrual pain and menorrhagia, and a slowly increasing swelling of the hypogastrium. Latterly there were dysuria and loss of flesh. On vaginal examination the cervix was found to be elongated and a tumour was found resting between the uterus and symphysis pubis. The cyst ruptured during the separation of adhesions, the pedicle was easily secured, and the patient made a good recovery.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At the meeting of this Society on Oct. 25th, Dr. KIRK (Partick) showed two cases of Myxœdema, one a male about forty years of age, and the other a married woman forty-two years of age, the mother of eight children. In the former case the myxœdema seemed to have gradually developed after a pleurisy, and in the latter after excessive hæmorrhage. The case of the latter was remarkable for the severe spasmodic affections from which the patient had suffered.—At the meeting of the Society on Nov. 22nd, Dr. KIRK read a paper on a case of Recurrent Acute Œdema of the Lips, Tongue, and Soft Palate, alternating with acute Eczema of the Face and Hands, in a case of Myxœdema. The patient was an unmarried woman thirty-four years of age, and the chief interest of the case centred in the diagnosis of myxœdema previously to the acute attack affecting the skin and mucous membranes of the mouth. This was founded on a history of great disinclination for exertion for the past five or six years, and a dry scaly state of the skin of the face and hands, with an increase in size of the feet, hands, and parts about the neck, the mother having observed lately a tendency to a hanging chin. An important fact was that a brother of the patient, who had lately died, had been a cretin, and Dr. Kirk expressed the opinion that the present case was one of modified cretinism, the tip of the nose being depressed, and the patient having never been able to bear cold bathing, which her mother said made her "blue," so that the circulation was difficult to restore afterwards. He intended to make a further study of the acute symptoms and a comparison with other cases of skin disease.—Drs. CAMERON, CULLEN, MARSHALL, STARK, and RICHMOND took part in the discussion which followed, and Dr. KIRK replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

President's Address.—Removal of Tumour of Brain.—The Pathology and Treatment of Urinary Fistula.

A MEETING of the Section of Surgery was held on Nov. 10th, 1893, Mr. E. HAMILTON, President, in the chair.

The PRESIDENT delivered the inaugural address, in which

he recounted the origin and history of the surgical societies which were now represented by this section of the Royal Academy of Medicine.

Mr. F. ALCOCK NIXON read the notes of a case of Removal of Tumour of the Brain, in which he had removed from the cavity of the skull a tumour two inches long, one inch broad, and half an inch thick. It implicated the motor area, commencing in the leg centre. It was accurately localised. Prior to the operation the patient was comatose and hemiplegic, but a month afterwards he was quite conscious and able to move his arm and leg and to describe correctly events which had occurred more than a year previously. His temperature was normal. Subsequently he suffered from hæmorrhage from the surface of a hernia cerebri and died a few hours afterwards. No necropsy could be obtained.—Mr. THORNLEY STOKER inquired whether the lesion was connected with the dura mater or whether it was intra-dural; also whether there was any obliteration of the arachnoid space between the dura mater and the growth in the brain.—Sir W. STOKES inquired whether the sebaceous cyst mentioned by Mr. Nixon lay over the situation of the tumour.—Mr. M'ARDLE wished to know the character of the hæmorrhage and of the protruded portion of the brain. He alluded to the value of absolute alcohol as an antiseptic in such cases.—Mr. NIXON, in reply, said there was certainly obliteration of the arachnoid spaces, and the membranes were all matted together. With reference to Sir W. Stokes' question, he had no doubt that it was a sebaceous cyst, and it was seated directly over the seat of the disease. There was a good deal of inflammation of the scalp over the roughened surface of bone, but whether there was any connexion between the cyst and the tumour he could not say. In reply to Mr. M'Ardle, he said the hæmorrhage was venous and came from a spot on the surface of the hernial protrusion. The latter did not appear to be in a healthy condition, because when he removed a portion of the hernia it gave the appearance of a slough separating. The treatment which he adopted was pressure, as he was not aware then of the good effects of absolute alcohol.

Mr. MYLES then described the generally accepted views on the Pathology and Treatment of Urinary Fistula. He said that, however varying were the methods described by operators, the general principles that underlay them were only two—(1) to make it easier for the urine to escape by a natural channel than by the fistula; and (2) to relieve the fistulous tract of the irritation caused by the trickling of urine over its surface. With reference to the first of these, Mr. Myles, having briefly discussed the merits of the various methods in use, expressed a decided preference for the method and instrument of Maisonneuve. With reference to the second, the speaker discussed the various methods already in use, giving it as his opinion that in obstinate cases the plan recommended by Mr. Thomson of the Richmond Hospital—viz., supra-pubic cystotomy as a preliminary measure, followed by free division of the stricture and dissection away of the fistulous channels—was the best. He then read notes of a remarkable case of large penile fistula, complicated by stricture and vesical calculus, in which he had adopted this method with success. Another case which he reported was still more remarkable, where a large recto-vesical fistula, due to a wound in the bowel, healed within a week.—The PRESIDENT commented on the good results of free incision in treating such difficult cases.—Dr. BROOKS mentioned the excision of fistula and spoke of two cases of fistula of long standing where the surgeon, having excised the diseased portions, brought the healthy portions together with satisfactory results.—Mr. M'ARDLE referred to the value of supra-pubic cystotomy for the purpose of giving physiological rest to the urethra.—Mr. THOMSON'S experience was that the tendency of urinary fistulæ, perineal or scrotal, was to get well, provided that a perfectly free channel for the discharge of the urine was established and supplemented by perineal section. In his own cases he always followed out fistulous tracts to their utmost limits and dissected out all the hardened tissues, taking care to free the whole urethra by the aid of Maisonneuve's instrument. He considered that this proceeding would do away with the need for excision and union of the healthy ends alluded to by Dr. Brooks. He thought that the results of opening the bladder in the supra-pubic region for the cure of obstinate fistula were very satisfactory.—Mr. NIXON spoke of Mr. Thomson's practice of not scraping the diseased tissues, but of completely removing them, as very valuable.—Mr. THORNLEY STOKER said that, although supra-pubic drainage was probably the best method for draining the bladder, yet it was a method which was not possible in a good many such cases, because the bladder had become so contracted that the operation of supra-pubic cystotomy was scarcely justifiable.—Mr. MYLES said he had no experience of the operation Dr. Brooks had mentioned, but he thought it was one of almost stupendous difficulty. He did not quite agree with Mr. Stoker, but thought that cases where it was impossible to bring the bladder forward must be very few, and reminded Mr. Stoker that in the frozen subject the top of the prostate gland was never below the symphysis pubis.

Reviews and Notices of Books.

Practicum der Physiologischen und Pathologischen Chemie, nebst einer Anleitung zur anorganischen Analyse für Mediciner. Von Dr. E. SALKOWSKI. Mit zehn Abbildungen und einer Spectraltafel. (*Practical Treatise on Physiological and Pathological Chemistry, with an Introduction to Inorganic Analysis for Physicians.* By Dr. E. SALKOWSKI. With Ten Engravings and one Spectrum Plate.) Berlin: Hirschwald. 1893. Pp. 314.

THIS work is the outcome of Professor Salkowski's experience as a practical teacher. It is divided into three parts. The first part is devoted to inorganic analysis, a knowledge of which is the foundation of all exact work in chemistry; the second part deals with the reaction of metals and of acids; and the third part discusses the mode of examining the various fluids of the body—of following the processes of gastric and intestinal digestion—and gives the method of conducting the analysis of calculi and of pathological exudates. The chapters are arranged as exercises, and the student is expected to perform the whole of the tests and processes described. In the case of milk, for example, its general characters are first given, then the mode of separating its constituents, followed by the results of gastric coagulation or of the action of the digestive ferment, the acquirement of lactic acid, and finally its quantitative analysis. Turning to the section detailing the characters and mode of examining the urine, we find that it is divided into twenty-two sections, besides some minor ones giving the mode of demonstrating the presence of the several inorganic constituents. The scope of the work may perhaps be understood from a translation of one of these sections, that relating to grape sugar, which is thus given: "Grape sugar, $C_6H_{12}O_6$, also named glucose, urine sugar, and dextrose. It is easily soluble in water and in dilute alcohol, but with difficulty in absolute alcohol. The fusion point of anhydrous grape sugar is 146° C. It crystallises with one molecule of water, $C_6H_{12}O_6 + H_2O$. The solution rotates polarised light to the right. 1. A test fragment cautiously heated in a dry test-tube melts, becoming yellow; the temperature being raised, it becomes dark-brown, with the evolution of a peculiar smell, which is of the odour of caramel. On cooling the residue dissolved in water gives a dark-brown colour." The potassium reaction and the tests of Trommer, the bismuth, ferrocyanide of potassium, silver, indigo, and fermentation tests are mentioned. Then the phenylhydrazine test is thus given: "To 100 c.cm. of a one per cent. solution of grape sugar 2·5 grammes of phenylhydrazine hydrochlorate are added, and agitated with 5 grammes of sodium acetate. The mixture is filtered, heated for three-quarters of an hour in a water bath, and allowed to cool gradually. A crystalline mass of phenylglucazone, formed of bright-yellow needles, results, $C_{18}H_2N_4O_4$. This is filtered and washed, and a portion of it is dried, and its melting point is determined, which, if it be pure, is 204° C. If it be much higher, as very often occurs with diabetic urine, the dry substance should be rubbed down with a little absolute alcohol, filtered, washed with absolute alcohol again, and then with ether; or it is dissolved in ordinary alcohol, then thrown into

a large excess of hot water, and kept at the boiling point until it no longer smells of alcohol. The different kinds of sugar all give osazone. They differ, *inter se*, chiefly in their melting point." Molisch's test with alcoholic solution of naphthol and sulphuric acid is then given. The work is carefully written throughout, and may be thoroughly relied on by the student.

Post-Scarlatinal Diphtheria: a Statistical and Etiological Study. By R. D. R. SWEETING, B.A. Oxon., M.B. Dub., D.P.H. Camb. London: Charles J. Clark. 1893.

THIS thoughtful paper, which was read before the Epidemiological Society, forms a statistical study of cases of scarlet fever, of diphtheria, and of diphtheria occurring during convalescence from scarlet fever, and from his figures and facts Dr. Sweeting draws certain conclusions both interesting and suggestive. He shows that "post-scarlatinal diphtheria" has occurred regularly at most of the hospitals of the Metropolitan Asylums Board and that there has been a marked increase of the complication at the "acute" hospitals since cases of diphtheria have been admitted. He, however, notes the important fact that at the Northern Convalescent Hospital it has existed both before and after the reception of convalescents from diphtheria and that its prevalence has not apparently been affected thereby. The age-distribution, fatality, and time curves of its incidence indicate a nearer approach of the post-scarlatinal ailment to diphtheria than to scarlet fever; and the author refers to the bacteriological determination of the identity between the disease occurring after scarlet fever and that which occurs independently of it. Without desiring in any way to minimise unjustly the importance of the bacteriological argument, we think that a clinical study of the disease would have had an even greater convincing power; we are inclined to think that if the clinical features of the disease, including its after effects, are the same as those noted under ordinary circumstances, its conjunction in the nomenclature of disease with the preceding scarlet fever is not strictly necessary. Dr. Sweeting does not find that the sanitary or administrative surroundings of the patients have had any marked etiological importance, but he suggests that the aggregation of acute cases of these diseases may have had some influence in fostering the outbreak of a subsequent diphtheria. The paper is in every way worthy of the careful methods which characterise modern inquiry into questions of public health and the investigation of the causes of preventable disease.

LIBRARY TABLE.

Compendium der Augenheilkunde für Studirende und Aerzte. Von Dr. PAUL SILEX. Mit 48 Abbildungen. Zweite Auflage. (*Compendium of Ophthalmology for Students and Practitioners.* By Dr. PAUL SILEX. With 48 Illustrations. Second Edition.) Berlin. 1893. London: Williams and Norgate. Pp. 217.—Dr. Silex's book is a true compendium, containing in small compass a good *résumé* of the symptoms and treatment of the diseases of the eye. The account of each affection can hardly be expected to offer any novelty, but the author, though concise, is clear, and has no hesitation in expressing himself strongly when occasion requires. Thus, in speaking of sympathetic ophthalmia, he observes that, notwithstanding the reports that have been published of recovery in a few instances, the prognosis is unfavourable, and he further states that such affections as sympathetic conjunctivitis and keratitis do not exist. We also recommend the volume to students as one from a study of which, with a dictionary, they can easily learn to translate German into English.

Weather Lore; a Collection of Proverbs, Sayings, and Rule concerning the Weather. Compiled and arranged by RICHARD INWARDS, F.R.A.S. London: Edward Stock. 1893.—There can, we think, be but little doubt that the subject to which this book is devoted is now engaging wider and more intelligent interest than it has heretofore commanded, at least in modern times. Meteorology, indeed, gives promise of soon taking rank, if not with the exact sciences, at least with those respectable branches of knowledge which are capable of being followed with something like definite and satisfactory results. The fickleness of the weather may in course of time cease to be proverbial, and the study of aerial currents, and the variations of temperature more or less dependent upon or connected with them, may by-and-bye result in the discovery of certain fixed laws, the codification of which cannot but be conducive to the comfort of life and the promotion of material prosperity. The book before us does not pretend to do more than bring together in a systematic form the ordinary weather lore applicable to the climate of the British Isles; nevertheless a goodly number of the proverbs contained in the volume have a foreign origin and may consequently be regarded as applicable to the vicissitudes of weather in various European countries. Anyone taking a glance at its pages must be struck with the large amount of matter included in them. Another noticeable feature of the book is the orderly arrangement of its contents observed throughout, by which reference may the more easily be made to any particular phase of weather phenomena dealt with by the author of the compilation. The book is a useful one, and cannot well be omitted from the shelves of a well-assorted library.

Studies from the Biological Laboratory of the Johns Hopkins University, Baltimore. Vol. V., No. 4. October, 1893. Edited by Professor H. N. MARTIN and Professor WILLIAM K. BROOKS. Baltimore: Johns Hopkins Press.—This part contains four articles, of which the first is a careful description by Mr. E. A. Andrews of an undescribed Acraniate, which, whilst resembling in its general aspect the Amphioxus, differs from it in many points. The second paper is a contribution to the Embryology of Chiton by Mr. Maynard M. Metcalf. The third article is a discussion on the Nature of the curious Cypress Knees which appear on the Roots of Taxodium Distichum (Rich), by Dr. John P. Lotsy. Each of these three papers is illustrated by two plates. The last article is on the Origin and Development of the Stichidia and Tetrasporangia in Dasya Elegans, a Genus of Floridiæ.

Letts' Diaries.—We have received from Messrs. Charles Letts and Co. specimens of their diaries for 1894, and, as is usual with this firm, no ingenuity has been spared to make account-keeping and notekeeping easy, and ignorance of the day of the week and of the day of the month sheer impossibilities. The Popular Shilling Diary devotes a page to each week, is interleaved with blotting-paper, and contains a good many extra pages to be used as a memorandum book; and its covers are replete with information upon all those little topics—e.g., postal rates, stamp duties, and money equivalents—which we all may want to know and which always require verification. The Office Diary and Notebook (1*s.*) resembles this, but each page takes the entries for three days. The Royal Blue Diary (1*s.*) is smaller and devotes its attention more particularly to facilities for account-keeping. The Office Diary and Notebook, bound in cloth with lettered index (4*s.* 6*d.*), is a handsome and serviceable form of diary, and is well worth the sum asked for it. The Boudoir Blotting Pad shows a month's engagements at a glance. Of numerous pocket-books we select for particular mention the Waistcoat Pocket Diary (1*s.*) with limp leather cover.

CHRISTMAS BOOKS.

(*Concluded from p. 1390.*)

THE Christmas number of "The Antipodean" (one vol., Chatto and Windus) reflects great credit upon its editors, Mr. George Essex Evans and Mr. John Tighe Ryan; and the favourable reception that they obtained for their annual last year—

not only in its Australasian home, but in England—should be theirs again in 1893. The little copy of verses by Mr. R. Louis Stevenson and Mr. Rolf. Boldrewood's racy story are the pick of about a dozen well-written and entertaining articles. "To Let" (one vol., Chatto and Windus) is the general title of a collection of eight little Anglo-Indian stories by Mrs. B. M. Croker. They are not very good stories, nor yet very bad. Had not Mr. Rudyard Kipling with wonderful audacity taught us to expect something vastly whimsical and amusing from brief records of life in the great Eastern empire, Mrs. Croker's work would have probably struck us as stronger and more dramatic. "Mrs. Raymond" is the best of the stories, and of the five which deal—and deal a little limply—with the supernatural, "If You See Her Face" is the only one that is really calculated to thrill its reader. "The Travels of Count Benzowsky" (one vol., T. Fisher Unwin) forms a very acceptable contribution to the publisher's Adventure Series. There has always been a good deal of mystery about the travels of Mauritius Augustus Aladar, Count and Baron of Benzowski, in Siberia, Kamschatka, China, and Japan; for it is certain that the gallant explorer did not go exactly where he was wont to say he had been. The book is edited by Captain Pasfield Oliver, who contributes a readable and thoughtful introduction, in which the summary of the character of his hero—"an adventurer, a plausible, amusing, good-looking, but wholly unscrupulous Don Juan, who would fight under any leader where plunder was to be gained"—shows that he does not ask the reader to take the noble explorer too literally. Read as history—to speak a little sweepingly—Count Benzowsky's memoirs have no value whatever, but as a novelist of the *picaresco* school there is no reason why he should not again enjoy the vogue that was his a hundred years ago. It may not be generally known that the Count or Baron—he seems to style himself indifferently by both titles—has been widely accepted as the original Baron Munchausen, but Captain Oliver refutes the imputation for him, by showing that a mendacious Teuton of that name really had an existence. "The Gun Runner" (one vol, Chatto and Windus) is a stirring story of the Zulu War, by Mr. Bertram Mitford, and is in many respects the transcript of actual experience. The chiefs and indunas who figure in the story are many of them real characters, and the localities described are those that at that time were familiar to the author. Mr. Mitford, as befits his name, writes with an excellent style, and his contribution to what he calls "a vanishing page of history" is decidedly good reading. Mrs. Brightwen's pretty, sympathetic sketches of the life histories of her numerous pets—"Wild Nature won by Kindness" (one vol., T. Fisher Unwin)—reappear seasonably. We know no better little book to put in the hands of a child whose bent appears to be zoological than Mrs. Brightwen's accounts of her methods of getting upon terms of intimate sociability with the shyest creatures. Prettily bound and really beautifully illustrated, this will certainly be a popular gift-book, but its readers will not find the subjugation of the butterfly so easy as the patient author seems to have done. With "Gold, Gold in Cariboo" by Mr. Clive Phillipps-Wolley and "Through the Sikh War" by Mr. G. A. Henty (each one vol., Blackie and Co.) we leave Mrs. Brightwen's peaceful atmosphere to be again plunged into storms of adventure, and frighted by hair-breadth 'scapes. Since the account of Martin Chuzzlewit's disappointment at the prospect offered to him by settlement in Eden, the "gilt-edged" speculation in land has always been a favourite topic with the novelists of action; and in Mr. Phillipps-Wolley's well-told, straightforward story the situation is treated with due regard to its dramatic possibilities. This is hardly so good a story as the author's previous book, *Snap*, but it has nevertheless qualities that are sure to make it very acceptable reading to boys. "The Icelander's Sword" (one vol., Methuen and Co) is a new and revised edition of an anglicised saga by the Rev. Sabine Baring-Gould (surely the most prolific of all our writers!), which first appeared some thirty years ago. Believing that boys are at the present time much what they were then, we feel sure that "The Icelander's Sword" will meet their views as exactly now as formerly, though we doubt whether the author's conscientiousness in correcting inaccuracies committed through a lack of personal experience of Iceland, which a visit has now removed, will at all enhance the work in his young readers' estimation. "Toddleben's Hero," by M. M. Blake (one vol., Methuen and Co.), belongs to an entirely different class of book, though it also is nominally a book for children. It is one of the class of which *Jackanapes* and *Wee Willie Winkie* are the most artistic specimens, and *Little Lord Fauntleroy* and *Bootles' Baby* the most popular examples—a class which seems to us to be much more fitted for adults than for the young. Toddleben is a little boy who admires his cousin's splendid cavalry uniform, considering it to stamp its wearer as an hero. Toddleben is afterwards introduced to a real hero—one of the twelve thousand survivors (in fiction) of the charge of the six hundred—who never wears a uniform; while a gallant soldier who has been guilty of the meanest moral cowardice, and a moral hero who gets no chance of displaying combatant prowess, play parts in inculcating the obvious teaching of the book, which, we may add, is illustrated with considerable if unequal skill.—The philosophical-minded lady who writes under the pseudonym of John Oliver Hobbes is responsible for the Christmas volume of the Pseudonym Library—"A Bundle of Life" (one vol., T. Fisher Unwin). It is needless to say that the book is epigrammatic, bitter, and clever, but it is not humorous and satisfactory in the way that *Some Emotions and a Moral*—her best-known story—was. It is very thin and the paradoxes are dragged in.—From Messrs. Cassell and Co. we have received two sumptuously illustrated books in the "Family Magazine" and the "Magazine of Art" for the current year. In the "Magazine of Art" there are some really beautiful reproductions, among which we would mention La Zingerella, by Luke Fildes, R.A.; The Spinster, by Edwin Long, R.A.; and A Loyal Bird, by A. C. Gow, R.A. Messrs. Ward and Downey are responsible for "The Portrait Gallery," a series of cabinet photographs of celebrities of the day, with appropriate remarks upon their subjects.—The last book we have space to notice is an American production, "The Brownies at Home" (one vol., T. Fisher Unwin), written and illustrated by Mr. Palmer Cox. The quaint representations of the good little fairies have the distinct merit of comicality, and should afford amusement to young readers, if any readers are now born young enough to take an interest in fairies; but the text is unworthy of them.

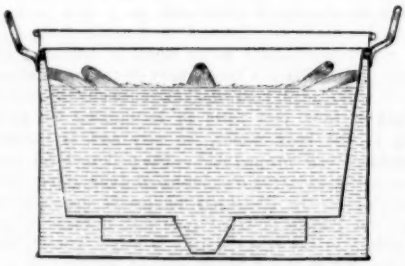
No author can always be at his best, no publisher can prophesy accurately what the public is going to like, and no reader can quite account for his individual tastes; but on the whole it seems to us that reader, writer, and publisher alike can congratulate themselves this year upon a very creditable supply of Christmas books.

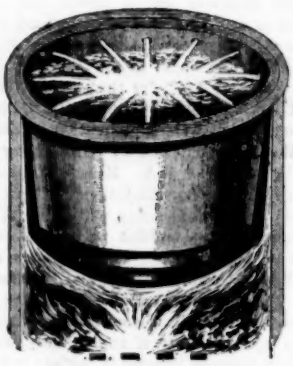
New Inventions.

THE "TORRENT" WASHER.

THE invention patented by Mrs. S. A. Mackie of Howley-place, Paddington, and called by the distinguishing term of "Torrent" washer, has been certified by unimpeachable testimonials as a most simple and effective automatic washing apparatus. As will be seen from the illustration, the apparatus consists of two vessels, one placed inside the

other, with an interspace between them. In this interspace the water boils; as it does so it expands and rises all round in the annular space, and, flowing through orifices in the upper part of the inner vessel or washer, is forced down upon the clothes within it. As the jets emerge into the air ebullition ceases, and hot water without steam percolates rapidly through the mass of articles to be washed. This water, after percolation, returns by a funnel in the bottom of the inner vessel into the outer boiler. As the cooler water thus descends it condenses the steam immediately below it, and the continuous vacuum thus produced causes a powerful suction. A steam trap is also attached to the bottom of the washer, and this greatly clears the water rising up the interspace from steam, so that very little reek indeed is emitted by the "Torrent" washer in its practical operation. A small boiler constructed on this plan and capable of holding about three gallons was submitted to our inspection. We filled it with water up to within an inch of the holes at the top, and placed it over a large gas burner. As soon as the water



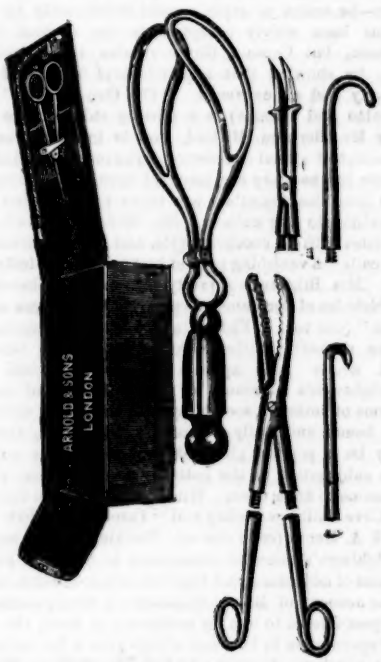


boiled, columns of hot water were forced by the pressure of the steam formed at the bottom of the boiler through the holes provided at the top, so that a constant stream of nearly boiling water was playing into and at the top of the washer in the manner indicated in the illustration. The amelioration of the circumstances under which so many poor washerwomen have hitherto had to perform their hard work is a most desirable step; and the invention may be further appreciated as it gives to the working woman by a less laborious task the means of competing, at a smaller cost, with the expensive machines of steam power laundries. The inner vessel, or washer, can be made to fit any existing boiler, whether fixed or portable, by taking the diameter and depth of the copper. Some of large sizes, from forty to fifty gallons, have been made and are, we understand, in use in laundries and baths, and competing with the ordinary plant at less than a quarter of the cost, even when supplied with special apparatus for boiling by steam. In such cases the steam is taken directly from the boiler without the intervention of any engine whatever. The automatic percolation then does all the work without any hand labour beyond ordinary superintendence and rinsing. A sluice pipe is fitted from the copper to the drain, the foul water can be let off into the sewers without exposure, and, fresh water being added, the clothes can be washed several times over when necessary. One has been for several months in use at the Lock Hospital and is said to be highly approved.

The capability of this system for temporary purposes in epidemics and for village hospitals is obvious. Smaller "Torrent" washers for ordinary domestic purposes, such as for boiling on a kitchen stove or gas rings, are made of sizes containing two, four, and six gallons, and these are useful for small articles, which it is so essential in a household to keep clean and sweet, a desirable end which is seldom attained where the trouble of hand washing is involved. We may direct attention to the sanitary services which these small washers are capable of rendering in domestic illness, as the tap referred to is a provision offering many advantages, amongst which may be mentioned that the clothes from the bedside can be put in without even touching, can be taken away in a compact form, and the washing done three or four times over if desired, the clothes being thoroughly cleansed before they are taken out again. The "Torrent" washers of the larger class are supplied by Messrs. Treggon Co., of Brewery-road, Caledonian-road, and the smaller ones, to which we have just referred, by Messrs. Perkins and Co., of Snow Hill.

THE "COMPACTUM" MIDWIFERY CASE.

THE accompanying illustration shows a very portable midwifery case, which contains the following instruments: Simpson's long forceps (folding), craniotomy forceps and perforator



to fit into the same handles, blunt hook and crotchet (jointed), frænum scissors, and female catheter. All the instruments are nickel-plated and fit into a morocco leather case measuring 8½ in. by 3½ in. by 3½ in. The makers are Messrs. Arnold and Sons of West Smithfield, London.

THE LANCET.

LONDON: SATURDAY, DECEMBER 9, 1893.

THE General Medical Council rose on Tuesday last after a long sitting, having been in session from the previous Tuesday—in all, seven days. Many members were absent. In some of the divisions no less than ten members of the Council were noted as being absent. Some of them were so throughout, as Sir JOHN SIMON, Dr. HAUGHTON, Dr. KIDD, and Dr. CHARLES MOORE; others only on later days of the session or on the occasion of particular divisions. The meeting has been another proof of the fact that the theoretical restriction of business at the autumn meeting to cases of discipline and the purgation of the Register is not practicable. There was, indeed, no lack of cases calling for the disciplinary functions of the Council; but there were also other serious subjects arising from the reports of the Education Committee and Examination Committee which demanded immediate attention. The way in which the Council does its work is not satisfactory. It seems to be always revolving round the same subjects. It gives the bodies no rest to formulate their requirements on the basis of its recommendations. It is constantly altering its own adopted regulations, and practically shaking and weakening them. The absence of Sir JOHN SIMON at the late meeting was conspicuous. His authority, his independence of all schools, and his intense earnestness in the demand for proofs of high efficiency in the candidates for diplomas in State Medicine have always been a force in the Council, of which some estimate may be formed by the vacillation on great subjects which has characterised so much of the work of the session. No doubt he has his crochets, and occasionally he follows them and leads the Council to do so, with disadvantage to its own credit; but there is always a perception of fundamental principles in his views, and a power of expressing and applying them, of which during the late meeting the Council was in sore need. We can only illustrate—by its dealing with one or two questions—the unsatisfactory manner in which the Council has done some of its recent work. The fundamental requirements of the Council, as defined in 1889 and 1890, with regard to Health Diplomas were two: first, that twelve months should elapse between the attainment of a registrable qualification and a diploma in State Medicine; and, secondly, that six months should be spent by the candidate for such a diploma in receiving practical instruction in laboratory work, and six months in out-door sanitary work. It was incidentally said that under the latter head candidates should be required to produce evidence of having received practical instruction in those diseases of animals which are transmissible to man, the enormous importance of which as a question in State Medicine is becoming every day more recognised. This is the basis laid down, practically by Sir JOHN SIMON, for the building up of a class of medical officers of health that shall be of "distinctively high proficiency, scientific and practical," and it was so settled in 1889 and 1890. Our readers will ask how it is that it comes to be raised again in 1893. The answer is simple. Only at the end of 1892 was it possible to know how far the regulations of the bodies granting diplomas in State Medicine were in accord with the requirements of the Council. It was to examine these regulations and to ascertain how far they were in such accord that the question was referred to the Education Committee; and also to examine various communications on the subject from the British Institute of Public Health, the Incorporated Society of Medical Officers of Health, from Dr. HAMER, as representing junior medical officers of health, &c. We should say that, judging from the reports of the Education Committee, there has been a general compliance with the requirements of the Council; but that the communications referred by the President to the Education Committee showed that the exact meaning of the Council in its rules defining the curriculum for Public Health diplomas was not clearly apprehended; nay, it must be admitted that the rules themselves were not explicit. There was a general understanding, indeed, that they required twelve months' special study after attaining a registrable qualification, with six months' laboratory work and six months' out-door work *consecutively* the one to the other; but this was not explicitly said. And one of the services expected from the Council at its late meeting was to give clearness to its own rules. Was twelve months' actual study required? Were the six months of laboratory work and out-door work to be taken consecutively, and so occupy twelve months? Or would six months' work suffice? These are the questions which were referred to the Education Committee and then to the Council, and these were the questions which it has left as vague as it found them, even so astute an intellect as that of Sir WILLIAM TURNER being quite as much at sea about them as Mr. JAMES and Mr. WIGHTWICK when they respectively wrote to the Registrar for guidance on these very points. Not only is this the case, but the Council has undertaken to reopen the original instructions and to weaken them. For the recommendation of 1891—that candidates should be required to produce evidence of having received practical instruction in diseases of animals transmissible to man—they have substituted the watery suggestion "that candidates be recommended to avail themselves of practical instruction in diseases of animals transmissible to man," a change not compensated for even by the addition of a requirement of some laboratory teaching in the pathology of diseases of this nature. Judged by such work the Council must appear to be a weak and halting body that does not know its own mind, and these very questions will arise again to waste more of the Council's time and money, and meantime some candidates will complete their sanitary education in six months and some in twelve. Another illustration of the tendency of the Council to be weakening its influence by constantly tampering with its own resolutions was in an attempt to burke the system of a six months' pupilage as one of the ways of spending part of the fifth year. This system was recognised after a demonstration of the want of practical knowledge of common diseases in students of even high attainments and had the general sanction of the Council,

including Sir WILLIAM GULL and others. Many of the great teaching bodies take it as a reflection on their powers and rights of a monopoly in teaching, and regard the practitioner whom they have made as being incapable of taking any part in the education of a youth for the medical profession.

Unsatisfactory also from some points of view was the action of the Council in its disciplinary work. Let us take as an example the case of "McDonald Sons and Co., Limited." After being told by one of the judges that the morality or immorality of the conduct of certain medical men was a matter for the consideration of the General Medical Council it has contented itself with hearing a statement from its own solicitor *in camerâ*, and passing an abstract resolution condemning the medical men and the system of giving testimonials in favour of the wares of companies in consideration of receiving Founders' shares. Surely the least the Council could have done was to require the presence of these medical men to allow them an opportunity of defending themselves. It is unheard of to accuse and condemn men in their absence and to deal so inadequately with professional conduct after a grave suggestion of the judge. We shall not pretend to assign the amount of blame due respectively to the Council and its legal advisers for the weak disposal of this case; but it assuredly will not raise the estimate of the Council as a body fit for dealing with questions of major professional morals. It would serve no good purpose to criticise the very unequal action of the Council in dealing with two very similar cases of medical men, each carrying on a practice in more or less alliance with an unqualified practitioner in a residence without any name attached to indicate that a medical practice was being conducted or by whom it was being carried on.

Grave defects have been pointed out in the curriculum and examination of the Conjoint Board of the College of Surgeons and Apothecaries' Hall in Ireland, and the Council has very properly intimated that unless changes are made before the next examinations it will feel bound to report the matter to the Privy Council. It has also passed a resolution that all its examinations shall be again visited and inspected. It is amazing that two examining bodies at the present time should omit from their requirements teaching in vaccination and infectious diseases, and in physics, biology, &c., and even should advertise the facts to attract students from more exacting boards. Serious faults, too, have been detected by the Inspector and Visitors in the Final Examinations of the Royal College of Physicians of Ireland and of the Royal College of Surgeons in Ireland, and their attention has been called to them. It has even to be confessed that the Inspector and Visitors in their reports of other examinations point out defects where they would not be expected. We must, however, reserve for another occasion further notice of the somewhat straggling and vacillating work of the Council.

THE paper by Professor HARE and Dr. THORNTON on the action of chloroform, which was the abstract of their report to Surgeon-Lieutenant-Colonel LAWRIE upon their experiments conducted at the Jefferson Medical College, Philadelphia, and which appeared in THE LANCET of Oct. 21st, forms a further important contribution to our knowledge of this subject. In the main it confirms the results of the Hyderabad Chloroform Commission, in so far as that it deals with the reaction of the lower animals towards chloroform, but in some points of importance it is at variance with its conclusions. Professor HARE and Dr. THORNTON find, like the Commission, that when chloroform is given by inhalation to dogs "insensibility comes first, then respiratory failure, and, finally, arrest in every case in the lower animals—in other words, that cardiac arrest never ensues primarily from the inhalation of chloroform." Like the Commission, they find that the action of chloroform given by inhalation is quite different from its action when injected into the jugular vein. In the latter case it acts upon the cardiac muscle as a paralysing agent, and causes death, beginning at the heart. This conclusion has a most important bearing, as Professor HARE points out, upon the results obtained by him and Professor H. C. WOOD in a former research. These results were published in the *Medical News* of Feb. 22nd, 1890. The tracings shown in that paper appeared to prove that chloroform was capable of causing primary arrest of the heart in the lower animals, but in all of these cases, with one exception, chloroform was injected directly into the jugular vein. In consequence of the more accurate information which Professor HARE has obtained from his present research, he frankly gives up his old conclusion regarding the effect of chloroform upon the heart, and adopts the one at which the Hyderabad Commission arrived, and which is stated above. However, he qualifies this statement when speaking of the human heart by admitting that "the variation of the action of a drug on a diseased individual from its effect on the normal one is notorious, and we have no right to dogmatically assert that there is absolutely no danger of circulatory depression in man, even if no evidence of failure is found in dogs, because there may be many idiosyncrasies or variations through disease in the human body which may completely reverse the results of experiments on healthy animals."

Like all other observers, Professor HARE and Dr. THORNTON find that the inhalation of chloroform causes a fall of the blood pressure. A certain amount of this may, no doubt, be due to an action upon the heart; for they find, as did Professor MACWILLIAM, that there is a tendency to cardiac dilatation during the whole of the action of chloroform. The main cause of the fall of pressure, however, they, like the Hyderabad Commission, consider to be a dilatation of the arterioles from vaso-motor paresis. The Hyderabad Commission came to the conclusion that stoppage of the heart through vagal inhibition, instead of being a source of danger, was rather a safeguard; but with this conclusion Professor HARE and Dr. THORNTON do not agree, and they think that in cases of fatty heart or severe valvular lesion the irritation of the vagus may be the last straw which upsets the circulation and causes death. In another important practical point they differ from the Hyderabad Commission—namely, that whereas the Commission did not find the fall of pressure to be much affected by the use of other drugs given together with chloroform, Professor HARE and Dr. THORNTON find that atropine decidedly postpones the circulatory depression caused by the chloroform.

While this report tends partly to correct and partly to amplify the results of the Hyderabad Chloroform Commission, it confirms some of the practical conclusions of the

Commission, and strongly emphasises the fact that "the statement of the Hyderabad Chloroform Commission *that the respiration should be watched* is correct." In this they are at one with all English anæsthetists, for they expressly qualify their statement by adding the words "we do not believe that chloroform can cause serious disorder in the *healthy heart* without, as a result of beginning disorder, disturbing respiration." They further support the experience of English anæsthetists, who have always, since the time of SNOW and SIBSON, contended that the respiration should be watched *and the pulse also;* suggesting that the pulse may advantageously be watched by another assistant, "for although the respiration is the more important function to watch, the man watching the pulse might discover an irregularity which the anæsthetist might not see reproduced in the respiratory action," and adding, also, that as divided attention is dangerous the anæsthetist's mind should concentrate itself on watching the respiration. Professor HARE and Dr. THORNTON think that while ether is safer than chloroform in the hands of one unaccustomed to administer anæsthetics, chloroform is indicated rather than ether when the patients are numerous, as in war, in hot climates where ether cannot be kept, and also in Bright's disease, aneurysm, atheroma, or bronchitis, where ether would be likely to injure the organs of respiration, circulation or excretion. The stress which they lay upon the difference in the action of anæsthetics upon healthy and diseased hearts strongly indicates the wisdom of the course advised in the columns of THE LANCET of drawing no conclusions from experiments upon animals alone, but of supplementing them by the evidence derived from clinical experience. Statistics of a large number of such experiments have been collected and published in the report of THE LANCET Commission on the Action of Chloroform and other Anæsthetics, and we trust that before long the material thus afforded may enable the medical profession to attain to a complete and practical knowledge of the dangers of anæsthetics and of the modes of avoiding them. The research of Professor HARE and Dr. THORNTON at the Jefferson Medical College, as well as those of Dr. GASKELL and Dr. SHORE and of the Hyderabad Commission, was suggested by Surgeon-Lieutenant-Colonel LAWRIE and paid for by the Nizam of Hyderabad, whose liberality in this respect is worthy of all praise.

THE cordial reception given by the Home Secretary on Tuesday last to an influential deputation, fully representative of a widely spread interest in the subject of further legislation for inebriates, is to be regarded as a token that this question is one of the few not wholly to be dealt with on political or party lines. Lord HERSCHELL when not in office evinced a keen interest in the question, and the work of the Departmental Committee appointed by the late Home Secretary has met with the approval and support of his successor. The deputation included such well-known social workers as Canon DUCKWORTH, Canon BARKER, Sir WILLIAM CHARLEY, Lady HENRY SOMERSET, Dr. NORMAN KERR, Dr. DANFORD THOMAS, and Colonel MASON; and they doubtless felt that they had a strong case to present. The figures adduced by Dr. NORMAN KERR were of substantial, if grave, import. It was stated that there were a quarter of a million commitments every year in the United Kingdom, representing 112,000 men and 33,000 women. Of these male convictions 50 to 60 per cent. were for offences complicated with drunkenness; of the female, 80 to 85 per cent. In cities from 2 to 7 per cent. of habitual drunkards had from 100 to 500 and 600 convictions. It was further stated that imprisonment had neither reformed drunkards nor deterred from drunkenness, but was neither more nor less than a training for habitual cases, re-establishing them and confirming them in their tendency. After the subject had been treated from different standpoints by members of the deputation Mr. ASQUITH said that the conclusions on this important subject at which the Departmental Committee had arrived had been for a considerable time under his attention, and it was his hope that in the next session of Parliament they would be able to introduce a Bill which would seek to give effect, at any rate, to the more important of them. The defects under our present legislative system appeared to him to resolve themselves into two. In the first place, it was a system which could not well be taken advantage of except by the comparatively well-to-do, and the poor were therefore, to a large extent, deprived of its benefits. The second point was that it was a voluntary and not a compulsory system. The result of these two defects has been to subject drunkards in the lower social scale to the worse than useless punitive measures involved in imprisonment, leaving the better-class drunkard in the matter of treatment to his own paralytic volitions, which are futile and inoperative for good. Mr. ASQUITH says, and says truly, that a very strong, even a very overwhelming, case would have to be made out before they could induce the House of Commons to assent to compulsory detention. But has not a case of this description been already made out when, according to his own showing, existing legislation has proved to be a failure without compulsion? No right-thinking person would wish to deprive a subject of his liberty without cause shown and due safeguards applied. Habitual drunkenness is shown to be an intolerable and pernicious social evil, of which the habitual drunkard is the exponent. If he is temporarily deprived of his "liberty" for his own good and for the good of the community, and more especially for the good of his own family, wherein consists the hardship? As soon as he shows that he can be trusted as a responsible unit in our everyday life he knows that he may return and be welcomed. We sincerely hope that no weak-kneed legislation will be attempted. No one is more conscious of his need for a dominating and strong will over his own halting and vacillating struggles for improvement than is the habitual drunkard, and it is this which the Legislature must supply. Comprehensive legislation is necessary; the temporising measure must fail. We feel assured that a recognition of this fact by our legislators will be the best and most efficient support that the cause of the hapless inebriate, and no less of his despairing relatives, can hope to obtain. Mr. ASQUITH himself thinks that there are forms of habitual inebriety as to which precedent, and the forms upon which our legislation has hitherto proceeded, would entitle the Government to adopt the principle of compulsion. This being so, it remains only that the principle be not lost sight of in the midst of a fatal sentimentalism, but

be put into practical application, though under due safeguards as to jurisdiction, authority for detention, and inspection. Of this we are assured, that there is no necessity or occasion to make it a medical rather than a social question, and that medical men would welcome the transference of all responsibility from their hands in all cases of habitual drunkenness, because the invidious duty tends to place them at a discount and disadvantage with their patients.

Annotations.

"Ne quid nimis."

THE BRADSHAW LECTURE AT THE ROYAL COLLEGE OF PHYSICIANS.

AT the special request of Professor Greenfield we postpone the publication of the Bradshaw Lecture on "Some Diseases of the Thyroid Gland," delivered before the Royal College of Physicians of London on Nov. 30th, until next week. The lecture was read by Dr. Sims Woodhead (Professor Greenfield being unfortunately prevented by illness from coming to London) before a large audience in the theatre of the Examination Hall, Victoria Embankment. It was a masterly study of a subject which is at the present time attracting great attention, and was especially noticeable for the evidence, pathological and clinical, adduced of the true nature of Graves' disease and the philosophical comparison between this affection and myxœdema. The lecture was illustrated by lantern demonstrations, which were continued on the following day, together with an exhibition of a large number of microscopical preparations.

DEATH OF PROFESSOR TYNDALL.

PROFESSOR TYNDALL, whose sadly sudden death took place on Monday last, combined to a remarkable degree the faculty for research with that for exposition. There are not many scientific men of the very highest flight who can also show themselves to be competent practical demonstrators and lucid popular writers, but the great physicist filled both parts to admiration. His papers to the Royal Society respecting the bearings of aqueous vapour upon the radiation of heat marked an era even in the most accurate scientific research; while as a persuasive lecturer and an experimenter before a popular audience not even Faraday, his mighty predecessor as superintendent of the laboratory at the Royal Institute, was more patently successful. His great power of writing in a style that was at once logical and fascinating earned for his books a circulation and a popular notoriety that few purely technical works have ever obtained, and in this manner he—with Darwin and Professor Huxley—did much to promote the common understanding of physical problems and the general taste for scientific information that distinguish the educated England of to-day from the educated England of half a century ago. Professor Tyndall was an Irishman by birth and was descended from a family holding rigid Protestant tenets. He studied in Germany under Bunsen and Magnus, and on his return to England became widely known as one of the select body of philosophers who made the Royal Institute their headquarters. In 1853 he was appointed Professor of Natural Philosophy at that institution, and four years later Superintendent of the Laboratory—a post which he resigned recently amidst expressions of universal regret. He was Rumford Medalist of the Royal Society, an LL.D. of the Universities of Cambridge and Edinburgh, a D.C.L. of the University of Oxford, and the recipient of similar honours from numerous foreign bodies. His great attainments also received State recognition, for he was at one time scientific adviser to the Board of Trade and to the Lighthouse Authorities. Of his numerous works, all of which are distinguished for their easy, brilliant, and epigrammatic style, "Sound," "Light," and "Fragments of Science" have been and are the most widely read, while the aggressive Presidential address given before the British Association at Belfast in 1874, which at the time of its delivery set all thinking men talking, is now out of print. As *The Times* has said, bishops stand to-day where Professor Tyndall did then. With regard to the sad occurrence of his death, we understand that he was in the habit of taking every morning two tablespoonfuls of a solution of sulphate of magnesia, a bottle of which was kept on his bedside table. A bottle of syrup of chloral (similar in size and appearance) also stood there, it being his custom to take a spoonful of it every night. On Monday morning last, at eight o'clock, about seven drachms of the syrup of chloral were poured into a glass and handed to him to drink in mistake for an equal amount of the saline aperient. The dose had been but a short time swallowed when the profound sleep which was induced caused the error to be discovered. Under the unremitting exertions of Messrs. Winstanley and Hutchinson, who were immediately summoned, and by whom emetics, stomach-pumping, and hypodermic injection of strychnia were employed, some recovery took place, so that at about 1 o'clock it seemed possible that life might be preserved; but shortly after this he fell into a profound state of coma, and Dr. Buzzard, who had been telegraphed for, on arrival at 5 o'clock in the afternoon, found him in a hopeless condition. The respiration at that time was short, quick, shallow, and ineffective, the insensibility profound, the pupils small, and the corneal reflex abolished. The expired air smelt of chloroform. Artificial respiration was again employed for more than an hour, but without effect, and death took place in perfect peace and painlessness at half-past six o'clock. It was remarked that the pulse remained good until within two or three minutes of the end. The verdict returned by the jury at the inquest was as follows: "Professor Tyndall died from an overdose of chloral accidentally administered in mistake for sulphate of magnesia."

THE WEATHER IN RELATION TO PREVALENT DISEASES.

GREAT and small mankind throughout the country have during the past few weeks been in sore trouble from the effects of "cold." The term is a familiar one, and all of us, whether medical or not, profess to understand its meaning; but cold nevertheless is not altogether such a simple matter, either as regards its causes or its characters. When we include the latter within a briefly descriptive term or blame the weather as alone accountable, we do not exhaust the possibilities of argument. Cold, so called, in these days implies more than a mere physical contraction of vital temperature—a chill. Take, for example, the case of an inflamed throat; the sufferer attributes it to exposure, and no doubt rightly, but he often forgets that over and above mere atmospheric action there exists another ever-potent source of mischief. So long as the tonsils, like watchful janitors, await within his fauces the ingress of minute foreign particles, they must arrest much detrimental matter. The morbid result may not, indeed, be diphtheria, but neither is it, save in common phrase, a cold of purely catarrhal type. Again, we have to record in the recent history of disease a fresh outbreak of that versatile and irrepressible disorder, influenza. So far we are happily able to describe the outbreak as not severe. Nevertheless, it

exhibits as much as ever the evidences of a truly infectious malady. It is more than a cold. Singularly enough, however, it presents in a greater degree than in its former invasions the characteristics of an ordinary catarrh. The tenacity with which it clings to the air passages and the alimentary tract is a feature which no careful practitioner will overlook, and which has, times without number, proved the source of graver troubles. Cold of the usual type—that is, catarrhal inflammation unconnected with a specific febrile state—is another of the legacies which we owe to an unhealthy autumn and an early winter. In respect of its management we cannot do better than emphasise the caution just given with regard to influenza. There can be no question that the weather, though not solely accountable, has had much to do with the propagation of each of the diseases above enumerated and of others which partake of their characters. An exceptionally dry and warm summer has been succeeded by a humid autumn, and this again has been the forerunner of a bleak and stormy season, broken by days of deceitful mildness. The combination, as we have seen, has borne somewhat hardly upon the weak points in many constitutions.

SEATS FOR SHOPWOMEN.

MISS CLARA COLLET'S reports to the Labour Commission on the employment of women in London deal with a subject to which some years ago public attention was called in the pages of THE LANCET. Its importance seemed to us at that time so great that we thought it worth while to canvas the principal tradesmen in London in order to ascertain to what extent seats were provided for their shop-assistants. The result of that inquiry was given in THE LANCET, vol. i., 1880, p. 1003, and we were able to congratulate ourselves, and all who had taken an interest in the matter, on the fact that of the large houses to which application was made for information as to the custom of supplying seats or otherwise to their assistants, twenty-four returned satisfactory replies. It would seem, however, that the ameliorative work thus inaugurated needs to be followed up, for, according to Miss Collet's report, at some large establishments the attendants are not allowed to sit down during the whole time they are on duty, except on certain specified occasions. We pointed out at the time of our inquiry the great hardship and the frequent injury to health inflicted on shopwomen by the above-named deprivation, and there is no need to repeat now what must be so obvious to all.

WINDOW CLEANING ACCIDENTS.

NOTWITHSTANDING the combined pressure of abundant advice, the teaching of experience, and such restraint as legislation has been allowed to exercise, the dangerous custom of cleaning upper windows from the outside, which has already caused so many accidents, continues to hold its place amongst domestic usages. The question, How to ensure its discontinuance or its safe practice? remains unanswered, though several solutions have been suggested. Among these may be mentioned the proposed introduction into the Employers' Liability Act of a clause which will make it the interest of householders to prevent the possibility of accident. Such an arrangement will, of course, be merely palliative unless it implies also legal prohibition of the method now in ordinary use. If this be allowed to continue it is, at least, necessary that some effectual safeguard should be determined upon and enforced by authority in the interest of the employed. We fail to see that any known preventive of accident can be entirely reliedl upon. The chief difficulty lies in the construction of the window. If it were made to open after the French mode there would be no question of security, but we should have more draught than we have now. It would be still bett r to retain the present arrangement of upper and lower divisions, and to have each of these constructed so as to revolve upon lateral swivels—to be, in fact, reversible from above downwards. Time, and a long time, is needed in order to carry out a reform so radical. The present, however, calls for consideration, and its immediate need, we repeat, is a safeguard. An ingenious and simple contrivance now used in Vienna may here be mentioned. It consists in a rope or band fastened by one end to the central window-sash, by the other to a belt round the waist of the window-cleaner. While windows must be cleaned in the manner still almost universal, the necessity of some such provision should be insisted on in any clause dealing with this subject which may be brought under the notice of Parliament. We should also recommend that the standing position should, wherever possible, be discouraged.

THE SURGICAL AID SOCIETY.

The annual meeting of this society, which, since its foundation in 1862, has been the means of assisting 122,848 persons residing in all parts of the United Kingdom and the Colonies, was presided over by the Lord Mayor at the Cannon-street Hotel, London, on Monday last. Year by year the operations of the society become more wide-reaching, thus making manifest to all, what must have been always very evident to the medical profession, that the extent of suffering throughout the country, only to be alleviated by the supply of properly adapted surgical appliances, is very great. The number of patients who have received assistance from the society during the past year amounts to 10,910, an average of 210 per week. In order to meet the outstanding accounts for surgical appliances the committee have had to borrow £500; but it is hoped that the friends of the society will not allow this useful charitable work to be hampered by the want of so small a sum, and that they will also relieve the society from the strain upon its finances, the existence of which the necessity for borrowing emphasises. It is satisfactory to notice that the local branches are growing in importance, evidence of such progress being their increase in income, and consequent increase of ability to confer benefits upon the poor of their respective localities. The society, however, still remains incompetent to deal with even a reasonable fraction of the applications made to it for aid, yet we can conceive few worthier objects of benevolence than a charity which has been the means of enabling thousands to maintain themselves by useful labour who otherwise would have been a burden to the workhouses or clamorous claimants in the streets for charitable doles.

PECULIAR "FAMILY" DISEASE.

IN a recent number of the *Neurologisches Centralblatt* appears an abstract of a paper which was originally published some months ago in the *Revue de Médecine*. It dealt with a curious combination of symptoms appearing in three members of the same family, two brothers and a sister, whose mother and maternal aunt also apparently suffered in a similar way. The first symptoms appeared in all at the commencement of middle life, between twenty-eight and thirty-seven, and consisted of attacks of pain occurring chiefly in the form of gastralgia, sciatic pain, and cramp in the calves. Very soon a peculiar disturbance in locomotion was evident. The gait became shaky and uncertain, and Romberg's symptom—inability to stand with the eyes closed—was present. The limbs became weak, and there was anæsthesia of the skin in the lower part of the thighs. There was also disturbance of articulation and nystagmus when the eyes were moved. There was likewise present a peculiar condition of muscles, not so much a myotonia as a peculiar shaking of muscles, and during voluntary movement there was such a disturbance as necessitated

that the movement should be carried out in jerks, and during repetition of the movements the same peculiarity persisted and did not leave off as it does in true conditions of myotonia. This peculiarity was visible earlier and in a higher degree in the muscles of the lower extremity than in those of the upper. When the arms were affected the disability was especially evident in the act of writing. The pen would suddenly stop in the middle of a letter, the hand would remain a moment in a state of cramp, and the movements would be resumed and go on naturally until another attack presently supervened. The nystagmus was also of this peculiar character, apparently depending upon a similar condition affecting the ocular muscles, and the disturbance of articulation apparently was the result of an analogous interference with the movements of the tongue. In the later stages isolated fibrillary twitchings were evident. Sensibility was impaired on the forearms and lower part of the thighs, but, curiously enough, sensibility to warmth remained unaltered. The knee-jerks were in all cases retained, but the pupil reaction to light was somewhat slowed. Intelligence and general health were quite good. The condition is peculiar and offers points of resemblance both to Thomsen's disease and Friedreich's ataxy.

THE PREVALENCE OF INFLUENZA.

REPORTS continue to reach us of the increased prevalence of this disease, and there can be little doubt that at the present time it is distributed pretty generally throughout the country. The disease seems to prevail extensively in Wales, and cases are reported from as far westward as Falmouth and as far to the north as Dunblane. At Liverpool the disease is said to have produced a considerable rise in the death-rate. Influenza has made its appearance on board the training-ship *Clio*, near Bangor, and some few days ago thirty or forty of the boys were suddenly attacked, and one of the assistant masters has since succumbed to the disease. An outbreak is also reported to have occurred on board H.M.S. *Cambridge* at Devonport. In some of the mining districts the miners have been seized while at their work in the pits, and in other parts of the country school closure is being resorted to owing to the large number of children attacked. The disease, though still of a milder type than in former epidemics, is nevertheless claiming a by no means inconsiderable number of victims, and in London alone during the week ending Nov. 25th there were thirty-six deaths attributed directly to influenza. As will be seen from our correspondents' letters from Scotland, Ireland, and the Northern Counties, in addition to the above facts, this recrudescence has been almost simultaneous in all parts of the kingdom. This is a suggestive contrast to the manner in which the disease spread on its first importation three years ago.

SACRAL HYSTERECTOMY.

THE November number of the *Annals of Surgery* contains an interesting article in which various operations are recorded for diseased conditions within the pelvis, access being obtained to the morbid growth through or by the side of the sacrum. Some operators remove the coccyx and lower part of the sacrum, while others merely pull the bones aside. Czerny has performed eight hysterectomies for cancer of the cervix by this method; one patient died from shock and the other seven recovered from the operation, but at the end of three and a half years only one was alive without recurrence, the others having died from the recurrence. Other cases are recorded in which the removal of dermoid cysts was effected by a similar procedure. A case in which a chondro-sarcoma was removed illustrates some of the serious after-effects that may result from operations according to the sacral method. The patient in this case suffered from paralysis of the bladder and rectum and weakness of the lower extremities, and died a year and a half after the operation from recurrence. The frequency of cancerous disease of the uterus and the fact also that a majority of cases only come under observation at an advanced stage render it a matter of special interest to determine how far hysterectomy after resection of the sacrum presents advantages over the usual vaginal method. It remains to be seen whether in future series of cases operations by the former plan will be less frequently followed by recurrence than happens after vaginal hysterectomy. So far this does not seem to be the case. When the disease has spread beyond the limits of the uterus no radical operation is generally advisable, and in cases of cancer of the cervix, if hysterectomy is considered to be necessary, the question of sufficient space for the various operative manipulations presents no difficulty. In cases of cancer of the body of the uterus, although vaginal hysterectomy is often exceedingly difficult on account of the narrowness of the vagina and the size of the affected organ, the former difficulty can be to a great extent met by incising the perineum. A considerably enlarged uterus can then be removed. We should be inclined to think that when the uterus is too large to be removed by vaginal hysterectomy there is a strong probability that the disease has passed beyond the tissues of the uterus, and we also think that, even if the uterus be removed, either some of the infiltrated tissue will be left or the operation will be followed by early recurrence.

THE HEALTH OF SOUTHEND.

ON Friday last a deputation from the Borough of Southend waited upon the Contagious Diseases Committee of the Essex County Council to call the attention of its members to a paragraph in the report of their medical officer of health, which the corporation of Southend objected to, inasmuch as it showed a lack of sympathy on the part of the committee and medical officer with the efforts which the Southend sanitary authority was making to eradicate typhoid fever from the borough. In the annual report for 1892 the medical officer of health for Southend stated that the fact that the typhoid death-rate had been reduced to below 0·5 per 1000 "must be a source of congratulation to the borough." The county medical officer, commenting upon this report, added, "As this death-rate is five times as high as the rate for the remainder of the county, the congratulation is surely a little premature." The town clerk, acting as spokesman for the authority, complained that whilst they were blamed for what they had not done, they received no praise for what they had already accomplished. He also suggested that the figure above quoted—0·5 per 1000—was too high, and that all the peculiar circumstances of the case were not fully considered. They were honestly endeavouring to carry out every one of the suggestions which had been made by Dr. Thresh some three years ago, even to obtaining the services of a medical officer who should give the whole of his time to the discharge of his duties. This they were only prevented from doing by the opposition of the Local Government Board. In reply it was pointed out to the deputation that the death-rate for the borough for 1892, as calculated by their own medical officer of health, was very inaccurate, and that, although comparatively few deaths had occurred during that year from typhoid fever, yet that the number of cases which had been notified had been considerable and that the typhoid death-rate, which they were contending was too high, was the figure given by their own officer. That they had received no word of commendation for sanitary works executed was entirely due to the fact that the only sanitary improvement chronicled in their medical officer's report was the purchase of a dust-cart. The specific nature of the works which the town council have carried out did not transpire, yet it

might have been thought that such a deputation would have been most careful to explain fully what had been done. The neglect to do this will probably result in damaging rather than in reinstating the character of the town. Medical and engineering experts have been consulted, and their suggestions are constantly being discussed by the Council; but how far they have been or are being really acted upon no one appears to know. No doubt after what has occurred the medical officer in his next report will chronicle all the improvements recently effected, and the public will be better able to judge whether the sanitary administration is effective or not. Under the circumstances we cannot help thinking that it would have been far wiser had the Corporation endeavoured to secure the sympathy of the County Council by some means necessitating less publicity than the formal reception of a deputation. We commented some time ago upon the refusal of the Local Government Board to allow a "whole time" medical officer of health to be appointed for Southend. Under the present arrangement the services of such an officer are in most frequent demand at a time when the place is crowded with visitors, and therefore when his private practice requires all his attention. Southend is the great holiday resort of the East-end of London, as many as 35,000 persons visiting there during a single day, some, possibly, with disease actually upon them, others hoping to evade disease by a day at the seaside. The conditions are exceptional, and it is to the interest of the county as a whole to prevent the town becoming a focus from which disease is disseminated. As the committee of the County Council are willing to aid the Corporation if they wish to obtain the services of a skilled medical officer to devote his whole time to the discharge of his duties, probably the Local Government Board will withdraw their objections. Failing this, combination with some adjoining authority might be found possible.

THE PROBLEM OF METROPOLITAN ISOLATION.

THE answer of Sir Walter Foster to Mr. Cohen, who asked for a Select Committee to consider this problem, is not satisfactory. Perhaps a Select Committee of the House is not the kind of body for the work; but that some inquiry into our present plight is urgently necessary admits of no doubt. The Local Government Board betrays no sense of the gravity of the problem, as it certainly seems to have no leisure to contribute to its solution. It stands convicted of never having made the rules and restrictions by which admission of non-pauper classes to these institutions was to be regulated. No more pitiful case has been reported than that in Wednesday's *Times* of Sophia Mary Buckminster, who died of typhoid fever unattended in her own miserable home, and for whom no place could be found in the hospitals belonging to the Board. A Royal Commission would be a more fit body for determining on what principles in future and under what restrictions the State is going to provide isolation for all classes, consistently with its first duty to the poor and the needy.

THE DENTAL HOSPITAL OF LONDON.

AT the annual dinner of the staff and the past and present students of the Dental Hospital of London, held on Saturday last in the Whitehall Rooms at the Hôtel Métropole, the President of the Royal College of Surgeons of England, Mr. John Whitaker Hulke, F.R.S., who took the chair, reminded his hearers of the enormous advances which had been made in dental surgery since his boyhood, when he remembered that tooth-drawing, bleeding, and cupping were frequently announced amongst the other operations which a blacksmith then undertook to do. He congratulated them on the valuable and practical character of the teaching at the Dental Hospital, and he urged on the students the necessity of pursuing their work in a true philosophical spirit. Mr. Stanley Boyd and Dr. Sidney Coupland, in response to toasts, also referred in congratulatory terms to the progress of dentistry. The authorities of the hospital are evidently keenly alive to the growing needs of the institution, in evidence of which they are sparing no efforts in raising a fund towards the erection of new buildings in Leicester-square to supersede the old hospital, which is totally inadequate to deal with the increasing requirements of both patients and students. A site for a new hospital near the old building has been acquired, and for this purpose the sum of about £40,000 is required. Of this amount the sum of £10,000 has already been promised and £6000 actually received. It must be a source of considerable gratification to the staff and to those who have been responsible for the teaching of dental surgery in the hospital school since its foundation to find that a large proportion of the contributions to the new fund are due to the efforts of former students and that an *esprit de corps* has sprung up which must serve to maintain the position and dignity of the dental profession, as well as to establish a code of ethics consistent with the honourable calling of a dental surgeon.

A LEICESTER HOSPITAL EXPERIMENT.

AN interesting experiment is in progress at Leicester. The disaster which followed the attempt to deal with small-pox and scarlet fever on the same hospital site has practically suspended the sanitary functions of the town council as an isolative authority except as regards small-pox. This has been a serious thing for Leicester, and now that the number of small-pox patients is few a tent has been erected on the hospital site and experiments are being made to see whether it is practicable to maintain this structure at a sufficiently equable temperature by day and by night to justify the treatment of small-pox in a tent in such a climate as ours often is in mid-winter. We shall look with much interest to the thermometrical observations, for the only published information on that point as yet is the experience of St. Pancras when using double-lined tents, which is recorded in Dr. Thorne Thorne's official report on infectious hospitals. But the Leicester experiment, if successful in this respect, will be rather curious than interesting, in so far as it will constitute a second attempt to deal with small-pox on the same site as other infectious diseases. The recent experience of Wimbledon with hospital tents is altogether adverse to exposing patients to the infection of small-pox in this way. A Royal Commission has reported against it, and we can well conceive that Leicester parents and guardians will resist the removal of their sick to a spot where small-pox is under treatment, although they will be professedly under isolation.

THE EFFECTS OF LIGATION OF THE CORONARY ARTERIES.

AN interesting addition to our knowledge of the heart has recently been made by Mr. W. Townshend Porter in an article published in the September number of the *Journal of Physiology*. He remarks that the experimental study of the influence of an interruption of the coronary circulation on the action of the heart may be said to have begun with Erichsen. The death of Hunter in 1793 in a paroxysm of angina pectoris and the discovery that his coronary arteries were indeed calcareous, as Jenner had predicted, was a great stimulus to the clinical and pathological study of these vessels, and this interest has extended to, and has even increased, during the last few years. Mr. Porter has made a large number of experiments upon dogs. The conclusions at which he has at present arrived are as follows. Ventricular stand-still was never observed after ligation of the

septal artery alone; it was observed in 18 per cent. with ligation of the arteria coronaria dextra, in 50 per cent. with ligation of the descendens, and in 80 per cent. with ligation of the arteria circumflexa. Ligation of two of the above-named arteries failed to stop the ventricles in 5 out of 14 cases. In each of the 5 the coronaria dextra was one of the arteries tied. Ligation of three arteries invariably caused standstill. The number of seconds during which the heart continued to beat after ligation varied with the artery occluded. With ligation of the coronaria dextra the time in 3 cases was, respectively, 1002, 1008, and 343 seconds; with the descendens the average duration of activity in 8 cases was 233 seconds; with the circumflexa the average was 119 seconds. Stand-still did not occur more quickly after ligation of a second or a third artery than after ligation of a single artery. When stand-still did not follow ligation the frequency of the ventricular beat was seldom changed. When stand-still followed ligation, frequency was sooner or later usually altered. But some hearts beat with unchanged rhythm to the last. As a rule, both ventricles stopped at the same moment, no matter which ventricle the ligated arteries supplied. Fibrillary contractions followed arrest of action instantly or within a very few seconds, and finally the arrest of action was always permanent.

THE DIFFUSION OF SMALL-POX.

IN the provinces small-pox is still slowly extending, and in some of the larger towns previously infected the disease maintains itself with a great deal of tenacity. In Walsall there were last week 36 fresh attacks, as opposed to 45 in the week ending Nov. 25th; in Birmingham the number was 69; Bradford, 41; Aston Manor, 15; Bristol, 13; West Bromwich, 9; West Ham, 6; Wakefield, 6; Wimbledon, 6; Oldham, 5; Middlesbrough, 4; Handsworth, 4; Leicester, 4; Chatham, 3; and minor occurrences in a number of other places, such as Bolton, Chadderton, Derby, Worcester, Smethwick, and Bath. In the metropolis there were 32 fresh attacks last week, and the total number of cases of small-pox isolated by the Metropolitan Asylums Board managers was about 130, this number representing a slight diminution. Small-pox has unfortunately become epidemic in Leith, and 28 are already in hospital. The accommodation available is now practically at an end, and the authorities are seeking some building by which their hospitals may be supplemented.

IODOFORM AND PUS FORMATION.

DR. MANSEL has made an interesting series of observations[1] on the action of iodoform in preventing suppuration. He watched the action of leucocytes on a warm stage amongst which a virulent culture of staphylococcus pyogenes had been introduced. A number of the microbes were absorbed by the leucocytes, but the latter were destroyed in about two hours. Dr. Mansel is of opinion that this destruction of leucocytes is due not to any mechanical action on the part of the staphylococcus, but to the toxines evoked by the microbe. Iodoform was then mixed with blood in the proportion of 0·10 to 0·25 per kilogramme of blood; the leucocytes were not, however, affected by the drug injuriously—on the contrary, the activity of their movements seemed to be increased. In another series of experiments he mixed iodoform with cultures of staphylococcus pyogenes aureus and staphylococcus pyogenes albus, but the organisms underwent no change. He then subjected the leucocytes and cultures of these microbes together to the action of iodoform, and found that the virulence of the staphylococcus was certainly diminished; for, instead of the movements of the leucocytes ceasing in two hours as they did in the first series of experiments, they continued for at least eight hours. An interesting fact was here noted, that although the virulence of the microbes was diminished, and they seemed to be devoured by the leucocytes, yet their reproductive properties were not affected and fresh subcultures were easily obtained.

[1] Bulletin Général de Thérapeutique.

INTERNATIONAL MEDICAL CONGRESS, ROME, 1894.

FROM Rome, under date Dec. 4th, our own correspondent writes: "The Chargé d'Affaires of the Argentine Republic at the Court of the Quirinal has informed the Minister for Foreign Affairs that the medical faculty of Buenos Ayres and the Board of Public Health of that capital have nominated Dr. Francesco Silveyra to represent them in clinical medicine and hygiene respectively in the sections dealing with those subjects at the coming Congress."

MEDICAL SICKNESS ASSURANCE IN FRANCE.

THE Seine Medical Mutual Association, which has now been in existence six years, has reason to congratulate its members, who now number 280, on its success and on its usefulness—100,000 francs having already been placed in the reserve fund. The arrangements differ somewhat from those to which we are accustomed. Thus, all the members, whatever their ages may be at the time of joining, pay the same premium—10 francs monthly—and sick members all receive a similar amount daily throughout the whole time they are ill. It is stated that one member, who has been obliged to give up practice on account of locomotor ataxy, has received 10 francs a day during the past financial year.

SMALL-POX IN SCOTLAND.

FOR some months Scotland has been practically free from small-pox, but the disease has now broken out with considerable severity in Leith. Within the past fortnight no less that 40 cases have occurred, and the existing hospital accommodation is being taxed to its utmost. The cholera hospital is being prepared for the reception of small-pox patients, and a temporary wooden structure, to receive 40 cases, is to be proceeded with at once. Free vaccination is being adopted. As Leith is a very important shipping centre and has constant inland communication with all parts of the country, it will be necessary for the Scotch sanitary authorities to prepare themselves once more to deal with imported cases of the disease.

PARLIAMENT AND THE INFLUENZA.

THE unmistakable reappearance of influenza in its typical and disabling form in London has a most important bearing on the prolongation of the present session of Parliament. We all know how severely and disproportionately its members suffered on a former occasion. How much more may they be expected to do so in the depth of winter and the gloom of shortening days, after a year of unexampled labour? Very serious loss of health, and even life, may be expected, perhaps in members on whose ability and judgment the country is relying for years of important service. There is no denying that, apart from influenza, Parliamentary work nowadays is exhausting to all but strong men. Mr. Gladstone's unique strength misleads him and misleads the public as to the limitations of the physical powers of members, on which the amount and character of the legislative work of the country depends. The prolongation of the session and the shortening of the brief interval of holiday to follow thus become questions of great national moment. They are by no means to be settled on political principles, but on physiological and medical considerations of great urgency.

FOREIGN UNIVERSITY INTELLIGENCE.

Kieff.—Dr. V. Orloff, of Kazan, has been appointed to the Chair of Surgery, in succession to Dr. Victor Subbotin, who has retired.

Moscow.—Dr. Alexander Bobroff, Extraordinary Professor, has been appointed to the Chair of Surgery in succession to Dr. Sklifasovski.

WE have received the following official communication from the Privy Council Office, dated Dec. 2nd, 1893:—"The Clerk of the Council presents his compliments to the Editors of THE LANCET, and with reference to the communication from this office of July 28th last has the honour to inform them that the Eleventh International Medical Congress will be held in Rome from March 29th to April 5th, 1894." Our readers will remember that "Our Own Correspondent" at Rome enabled us to announce the fixture of this date in an annotation in our issue of Nov. 18th.

DR. JAMES GLEDHILL, of Manchester, who is a barrister-at-law as well as a physician, is, we understand, a candidate for the vacant coronership of Preston and county. In mentioning the fact we repeat the hope, expressed in THE LANCET of Dec. 2nd, with regard to Dr. James Rigby's candidature for the same post—that the County Council of Lancashire will elect in the place of their recently deceased medical coroner another medical man to fill his place.

The second series of lectures to be given by the Sunday Lecture Society will be inaugurated by Sir Benjamin Ward Richardson, M.D., F.R.S., who will lecture on the subject of "The Mastery of Pain" at St. George's Hall, Langham-place, on Sunday, Dec. 10th, at 4 P.M.

THE first of the annual course of Christmas lectures at the Royal Institution will be delivered by Professor Dewar on Thursday, Dec. 28th. The subject will be, "Air, Gaseous and Liquid."

THE USE OF OPIUM IN INDIA.—Recently Surgeon-General Sir William Moore delivered a lecture at the Imperial Institute on the effects of the consumption of opium on our fellow-subjects in India. The opinions of the lecturer have now become pretty well known by means of the published reports of the evidence given by him before the Opium Commission, full abstracts of the proceedings of which have been published in THE LANCET. We need not now, therefore, do more than glance generally at the points brought out by Sir William Moore in the lecture referred to. If taken in sufficient quantity, he said, opium was deleterious, but this was not the use but the abuse of the drug. Opium enabled people to do with less food than they would otherwise require. The same might be said of tea. The consumption of crude opium was certainly injurious, as it lessened both the secretions and the movements of the stomach and so checked digestion. As to the alleged immorality of the use of opium, he failed to see it. More immorality might be seen in one night in a London gin shop than in an opium den during a whole year. As to the incidence of opium-smoking on the death-rate he quoted statistics of an insurance office to show that the habit did not increase the number of claims advanced by the survivors of insurers. As regarded the effects of the use of the drug, he compared them favourably with those resulting from the habitual indulgence in alcohol. The cessation of the growth and sale of opium would, said the lecturer, throw thousands out of employment and seriously jeopardise the hold of England on her chief Eastern dependency. At the conclusion of the lecture Lord Reay, in proposing a vote of thanks to Sir William Moore for his instructive address, said the subject was one of profound importance, and could not but gain by being treated in the scientific and practical way shown in the lecture to which they had listened.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

FOR the first time in the history of the Council a barrister appeared before it last week, arrayed in the professional wig and gown. The gentleman who enjoyed this distinction was Mr. H. C. Biron. It is not so long since medical men against whom charges of unprofessional conduct were made had to conduct their own defence, and were denied the benefit of counsel; now both solicitors and counsel are admitted. Until last week, however, the wig and gown had not made their appearance.

One of the chief factors in the prolongation of the session of the General Medical Council which has just come to an end was the large number of "penal" cases and the great length at which they were made the subject of inquiry. Time so spent cannot be regretted. When it can be recognised at once that the decisions upon which, perhaps, a medical man's livelihood as well as his reputation hang have not been arrived at hastily, but have been the deliberate result of patient and exhaustive inquiry, they must command a large measure of respect. The profession will feel that the maintenance of a high standard of conduct has received due attention; while those whose misfortune or fault it has been to be cited to appear before the Council in its disciplinary character will understand that their defence obtained adequate hearing and that nothing was lost to them by undue haste.

The Conjoint Boards in England and Scotland and the Society of Apothecaries apparently do not intend to make compulsory the requirements of the Council that physics, chemistry, and elementary biology must be studied after registration; but they are prepared to allow students to pass these examinations before entering at a medical school, providing always that five years' professional study subsequently to registration is insisted on before students can present themselves for the final examination. These bodies are quite right in separating as far as possible the general scientific subjects from the strictly professional ones; but if a student pursues this course we shall have the curious anomaly of a diplomate having undergone a six years curriculum, whilst a university student will obtain a qualifying degree at the end of five years.

The resolutions of the General Medical Council with regard to the regulations for diplomas in State Medicine briefly mean that twelve months shall be devoted to the work for this diploma after a registrable qualification has been obtained. Six months must be given to laboratory work and six months to the practical study of the duties of out-door sanitary work under the medical officer of health of a county or a large urban district. The candidate must also have attended at some time the clinical practice of a hospital for infectious diseases. Four days are to be devoted to the examination, which is to be conducted by examiners specially qualified, and such examinations are to be visited by an inspector from the Council. These rules are to apply to candidates who commence special study on or after Jan. 1st, 1894; but they will not apply to medical practitioners registered or entitled to be registered on or before Jan. 1st, 1890, or to registered medical practitioners who have for a period of three years held the position of medical officer of health to any county or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district. As these exceptions cover a large majority of the candidates who now seek

diplomas in Public Health, and as there are so many in possession of such diplomas already who have done no special laboratory work and who have had no experience of out-door sanitary work, candidates under this new scheme will form quite a minority, and we question very much whether many medical men will find it worth while to go through the prescribed course. We hear of fifty or sixty applicants holding these diplomas for a second-rate appointment, while it will be only after an average life-time that the field will be left open to them. Until then a specially trained class of diplomates in Public Health will have but a small advantage in the race for the appointments.

Saturday afternoon (Dec. 2nd) was largely taken up by Irish affairs, which contrived to get themselves discussed with something of the breeziness that appears to be inseparable from Hibernian business. Dr. Atthill, representing the Royal College of Physicians of Ireland, moved to call the attention of the Council to the defective professional education required by the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland, which bodies he somewhat uncompromisingly accused of a deliberate attempt to grant cheap and easily attainable qualifications. According to Dr. Atthill, under the combined scheme of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland it was possible for a student, astute enough to understand all the educational details of the different schools but not prepared to exercise his wits upon physiology, to escape examination upon that somewhat important topic. Dr. Atthill's motion was, after some discussion, withdrawn, with the intention of allowing time for communications being received from the various bodies in question by the Examination Committee of the Council. The point is undoubtedly a highly important one, for the raising of the general standard of medical education can only be effected by a more or less general uniformity in the various curricula. On Monday Dr. Batty Tuke, Chairman of the Education Committee, returned to the charge, moving that the Council should intimate to the said educational bodies—i.e., the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin—that unless they amended their prescribed courses of study and examination, so as to bring them into compliance with the requirements of the Council, on or before the first day of 1894 they would be reported to the Privy Council. An amendment, proposed by Mr. Brudenell Carter, to insert the words "prior to the next examination," instead of "Jan. 1st, 1894," was carried, and Sir Philip Smyly, the representative of the Royal College of Surgeons in Ireland, acquiesced in the suggestion, pointing out at the same time that the standard of the examinations of the Conjoint Board in question had lately been raised and that the subjects of mental disease and vaccination were to be re-introduced into the regular course of instruction. The President gave the position its due dramatic importance by saying that this was the first occasion on which it had been necessary to mention the possibility of appeal to the power of the Privy Council.

On May 23rd last tables containing the results of the final examinations by the various qualifying bodies from 1875 to 1892 and a synopsis of the results from 1861 to 1892 were referred to the Examination Committee in order to consider and report upon to the Council. Tables for 1891 and 1892 containing the results of the whole series of the examinations by the different bodies were also presented. In these tables rejections vary from 50 and 60 per cent. to 10 and even 0 per cent. at the different examining boards. It will be interesting to note that, according to the synopsis, in the early sixties the average percentage of rejections varied from 11 to 15, whilst in the nineties they have risen to an average of 38 and 39 per cent. We are inclined to think that this is due less to educational methods being worse than to examination standards being very much higher and more precarious in their results even when a well-educated student presents himself for the ordeal. We sympathise with the Registrar's trouble in having devoted so much time and labour to what anyone with a practical knowledge of examinations could have foreseen would prove a useless work. The Examination Committee, after due consideration of these reports, regretted to find that no information of any practical value was forthcoming from any of them, and did not consider that such was likely to be obtained by this or by any other method of inquiry founded on a basis of mere statistics. The Examination Committee desired to express their sense of the labour entailed on the Registrar in making this investigation, and felt that, but for his special faculty of dealing with statistical matters, they would have been quite unable to pursue such an inquiry. It was the more regrettable, therefore, that it should prove to be barren of any trustworthy or fruitful results. The practical working of nineteen licensing bodies in the three countries could not, in the opinion of the Examination Committee, be calculated mathematically. Circumstances affecting the standards of examination varied, and might be expected to vary, from year to year, and were especially likely to do so in times of transition and amendment such as in recent years had influenced medical education in the United Kingdom.

Mr. Brudenell Carter, in a motion for the regulation of advertisement by dentists, put the matter in a nutshell when he said that certain dentists appeared to desire at one and the same time the privilege of a profession and the freedom of a trade. It can only conduce to good that the committee of the General Medical Council for the consideration of penal cases should keep a watchful eye upon the advertisements of dentists.

We regret to learn that Dr. Glover, one of the direct representatives of the profession, has been confined to bed since Thursday last owing to a severe attack of laryngeal catarrh, so that he has been unavoidably prevented from attending the later sittings of the Council.

THURSDAY, NOV. 30TH.

The Case of Mr. F. E. Tomlinson.

The first case considered was that of Frederick Ebenezer Tomlinson, registered as Licentiate of the Royal College of Physicians, Edinburgh, 1889; Licentiate of the Royal College of Surgeons, Edinburgh, 1889; and Licentiate of the Faculty of Physicians and Surgeons, Glasgow, 1889, who was summoned to appear on the following charge, as formulated by the Council's solicitor: "That, being a registered medical practitioner, he had for a considerable time past acted, and still acts, as cover to an unqualified person named William H. Wells, carrying on a medical practice at Bilston, Staffordshire, and by his presence, advice, and assistance, and permitting the use of his name and professional qualifications, enables the said William H. Wells to attend and administer relief to patients and recover charges therefor and otherwise carry on a medical practice as though he were duly qualified."

The complaint was made by the Medical Defence Union, for whom Dr. Bateman appeared.

Mr. Tomlinson was represented by Mr. Lister Drummond, barrister.

Dr. BATEMAN having read affidavits in support of the charge,

Mr. LISTER DRUMMOND read Mr. Tomlinson's answer. In this Mr. Tomlinson stated that he purchased the practice from a Mr. Martin and had carried it on in his own name. Mr. Wells had only acted as his assistant, and for his services in that capacity he had paid him £3 per week. To his knowledge Mr. Wells had not received patients himself or acted independently without his (Mr. Tomlinson's) supervision. He denied altogether that he had acted as cover for Mr. Wells.

An affidavit by Mr. Wells was also read, corroborating that of Mr. Tomlinson. Mr. Drummond did not call any witnesses, resting his case on the affidavits.

Dr. BATEMAN, however, elected to call Mr. Tomlinson, from whom he elicited the fact that he bought the practice of the late Mr. Martin from Mr. Wells, the executor, and that he was introduced to the patients by Mr. Wells.

Mr. BRUDENELL CARTER: Were any of the patients actually ill at the time you were introduced to them?

Mr. TOMLINSON: Yes.

Mr. CARTER: How did you learn anything about the nature of their cases? Did Mr. Wells give you any information as to what was the matter with them?

Mr. TOMLINSON: I cannot remember now.

Mr. CARTER: Your memory seems to be so bad that I will not trouble you with any further questions.

Examined by Mr. DRUMMOND, Mr. Tomlinson said he knew that Mr. Wells had acted as Mr. Martin's assistant, and he considered that Mr. Wells was the best person to introduce him to the patients.

By Sir W. TURNER: Mr. Wells never attended a case of death without witness seeing it, and he never signed a death certificate without having seen the case. He had not signed any vaccination certificates in cases he had not seen. He had rooms in the house of Mr. Wells, whose name was on the rate-book.

Dr. BATEMAN also called Mr. WELLS, who stated that he was first of all with a Mr. Crock in this practice. This gentleman borrowed money from him, and when he went away the practice was carried on under a succession of qualified men. He endeavoured to sell the practice in consideration of the money owing to him, and disposed of it to Mr. Martin about 1888. Subsequently to Mr. Martin's death other qualified men conducted the practice, one of whom he paid a salary, in the expectation of his buying the practice. He ultimately, as Mr. Martin's executor, disposed of it to Mr. Tomlinson.

Mr. DRUMMOND having addressed the Council on behalf of Mr. Tomlinson,

The Council deliberated in private, and on the readmission of the public,

The PRESIDENT informed Mr. Tomlinson that in the opinion of the Council he had not committed the offence or offences charged against him. At the same time he (the President) was directed by the Council to caution Mr. Tomlinson as to his future conduct in regard to the employment of unqualified assistants and as to his method of giving medical certificates.

Case of Eliza MacDonogh (Frickart).

The Council next considered a communication from the Royal College of Physicians of Ireland intimating the removal from the roll of Licentiates in Medicine and Midwifery of the name of Eliza MacDonogh (Frickart). The name referred to, it was stated, appeared in the Medical Register as Eliza Foster MacDonogh (Frickart), with the qualifications of Licentiate of Midwifery, 1879, King and Queen's College of Physicians, Ireland, and Doctor of Medicine of the University of Zurich, 1877; and the charge against her was violation of the declaration taken by her on her admission as a Licentiate in Medicine and Midwifery in respect of advertising a practice in New Zealand. The Council, on the motion of the President, removed the Irish qualification, and directed that Eliza MacDonogh should be summoned at the next Council in respect to her Zurich qualification.

Communications from Mr. T. F. Tracey.

Correspondence between Mr. Tracey and his solicitor, on the one hand, and the solicitor and registrar of the Council, on the other, were read, and the Council instructed the solicitor and registrar to take no further notice of Mr. Tracey's communications.

The Council then adjourned.

FRIDAY, DEC. 1ST.

The Council met again, under the presidency of Sir RICHARD QUAIN.

Diplomas in State Medicine.

The Council went into committee to consider the report by the Education Committee on the regulations of the licensing bodies granting diplomas in State Medicine.

Dr. BATTY TUKE, chairman of the committee, explained the chief points in the report. He read out the terms of the resolutions passed by the Council in regard to diplomas in State Medicine and the clauses of the Acts of Parliament bearing on the powers of the Council in this connexion. The committee had taken the opinion of council on two points. The first point was: "Whether the person to be examined for the diploma referred to in the Section (Medical Act, Section 21) must be a registered practitioner before being admitted to examination." Mr. Muir Mackenzie gave as his opinion that "it is sufficient if he is a registered medical practitioner at the time the special diploma is granted to him." The second point was: "Whether the General Council possesses the power to inspect the examinations in Sanitary Science, so that the General Council may be satisfied that these diplomas deserve recognition in the Medical Register." Mr. Muir Mackenzie's opinion was given to the effect that: (*a*) under Section 3 of the Act of 1886 the power conferred on the General Medical Council to inspect certain examinations referred only to examinations held for the granting of diplomas which confer the right of registration, and did not extend to the examinations which medical authorities might hold for the purpose of granting diplomas in State Medicine; but (*b*) that, having regard to the statutory powers and duties of the Council in reference to medical education, it is "the duty of the Council to inquire and consider what the examinations and courses of study for diplomas in Sanitary Science have been, and not to give recognition to those diplomas unless satisfied that the examinations and courses of study ensure the standard of proficiency which the Council consider necessary"; and (*c*) "that in considering and formulating beforehand the conditions which, in the opinion of the Council, should be fulfilled in order that diplomas in Sanitary Science may deserve recognition, the Council are doing what is convenient and are in no way exceeding their statutory duty." The committee considered it to be of importance to indicate that the Council had power, subject to the action of the Privy Council, to lay down rules to be observed by the licensing bodies in order that their diplomas in Public Health or State Medicine should deserve recognition in the Medical Register. In this respect the powers of the Council differed materially from those they exercised over professional education, examination, and registration. The report then dealt in detail with the regulations of the different licensing bodies. Dr. Tuke drew special attention to the passage in which it was said that the committee, while of opinion that the Council in framing its rules desired to ensure as far as possible a full year of study in sanitary science, did not think it necessary to define which part of the year should be occupied by each practical course. The committee, he said, were not unanimous upon this point. A certain number held that if these two courses were not taken consecutively the intention of the Council that a full year of study should be taken would not be carried out. However, it was agreed to report in the terms he had read, leaving it open to any individual member of the Council to move in the matter. In submitting this report the committee had been actuated by the desire to make it final and had therefore stated the facts connected with diplomas in State Medicine in detail. In framing resolutions they had kept in view the expressed opinion of the Council that such diplomas should be evidence of "a distinctively high proficiency, scientific and practical, in all the branches of study which concern public health." There was no question of major and minor or higher and lower qualifications in this matter: the examinations of all the bodies must be of high standard. The committee recommended the Council to record its opinion of the necessity for the public good that the several examinations of the bodies should be maintained at a high standard, that candidates about whose proficiency any doubt existed should be rejected, and that the principle of compensation (proficiency in one subject being allowed to make up for ignorance in another) should not be admitted.

The Council then proceeded to deal with the recommendations drawn up by the committee as to the alteration of the rules. They passed without discussion a preamble declaring among other things that the Council would not consider diplomas to "deserve recognition in the Medical Register" unless they had been granted under such conditions of education and examination as to ensure, in the judgment of the Council, the possession of a distinctively high proficiency, scientific and practical, in all the branches of study which concerned the public health.

Dr. BATTY TUKE, seconded by Dr. BRUCE, moved the first recommendation, which was to this effect—viz., "A period of not less than twelve months shall elapse between the attainment of a registrable qualification in Medicine, Surgery, and Midwifery and the admission of the candidate to any

examination or any part thereof for a diploma in Sanitary Science, Public Health, or State Medicine."

Dr. MACALISTER pointed out that this was only a very slight alteration of the existing rule. Before examination it substituted "any" for "the." This was done because of the doubt that had arisen in at least one body.

Dr. CHURCH thought it should be made quite clear whether the examination might be passed in two parts or whether it must all be passed at the same time.

Dr. BATTY TUKE said it was intended that no part of the examinations should be taken before the lapse of twelve months.

The recommendation was then agreed to.

Dr. BATTY TUKE moved the second recommendation—viz: "Every candidate shall have produced evidence of having, after obtaining a registrable qualification, attended during six months practical instruction in a laboratory or laboratories, British or foreign, approved of by the body granting the qualification, in which chemistry, bacteriology, and the pathology of the diseases of animals transmissible to man are taught." The new words here were, he explained, "laboratories" and "in which chemistry, bacteriology, and the pathology of the diseases of animals transmissible to man are taught." The committee thought it right that candidates should have the option of studying in more than one laboratory.

Dr. MACALISTER, seconding the motion, said it was well to define the character of the work desired.

Dr. HECTOR CAMERON said that he entirely approved of the rule in this form. No one could exaggerate the importance to medical officers of health of the study of the diseases of animals transmissible to man. He was afraid, however, that there would be difficulty in obtaining practical instruction in the subject.

Sir WILLIAM TURNER said that, according to the opinion of the committee, it would be quite possible and within the rules of the Council that one candidate should take his laboratory work first and another candidate his practical work first, and he was not quite sure whether it would not be possible for a candidate to take both the laboratory and the practical work at the same time. He wished to know whether this laxity was what the Council expected. It certainly was the intention when the rules were originally framed that the laboratory should precede the practical instruction, and that there should be a definite twelve months of instruction, one-half of that time to be given to laboratory and the other half to practical work.

Dr. BRUCE reminded the Council that the rules must be read together. The first one made it clear that twelve months must elapse.

Dr. CHURCH thought that it would be extremely harsh to lay down which of the courses of study should be taken first.

Mr. BRUDENELL CARTER said there was a safeguard in this—viz., that even if the two kinds of study were carried on concurrently or partially overlapped one another the candidate still would not be able to neglect either of them, because he would have the whole of the examination looming in the distance. He thought the rules were sufficiently explicit.

Dr. MACALISTER spoke in support of the proposed rule.

The PRESIDENT suggested that it would be a wise course simply to say that twelve months should be devoted to the study of these subjects.

After some further remarks from Dr. Batty Tuke the rule was agreed to.

Dr. BATTY TUKE, seconded by Dr. MACALISTER, moved the third rule as recommended by the committee—viz.: "Every candidate shall have produced evidence that, during a period of six months after obtaining a registrable qualification, he has either practically studied the duties of out-door sanitary work under the medical officer of health of a county or large urban district, or else has himself held an appointment as medical officer of health under conditions not requiring the possession of a special sanitary diploma The certificate of an assistant officer of health of a county or large urban district may be accepted, provided the medical officer of health of the county or district consents to the assistant officer giving such instruction."

Dr. BRUCE hoped that no pretence or sham six months' work would be taken as a qualification for this examination. In his view it was impossible to get through the necessary amount of work in less than six months. In the University of Edinburgh it was only overtaken in six months with difficulty.

The rule was then agreed to.

Dr. BATTY TUKE moved the next recommendation, which was to the effect that "every candidate shall have produced evidence that he has received practical instruction in those diseases of animals that are transmissible to man." This rule, he said, was introduced to ensure that the candidate should have some general knowledge of the diseases of animals transmissible to man. A practical difficulty had been raised by Dr. Cameron, but he would remind him that at Edinburgh instruction in such diseases as tuberculosis and anthrax was readily given to the students in connexion especially with the slaughterhouses. In London, at the Veterinary College, there were a number of diseases that might be taught.

Dr. HECTOR CAMERON said that it was wrong to expect obedience to a rule when they knew that obedience was impossible. His friend had spoken about tuberculosis and anthrax at Edinburgh, but he held that that was not practical instruction in the diseases of animals transmissible to man. One of the members of the Education Committee had suggested to him that these diseases might be studied in veterinary establishments. Everybody knew that with such an infectious disease as farcy or glanders the animal was at once removed, and they might as well recommend students to study infectious disease in general hospitals as to expect that they could study the infectious diseases of horses either in stables or at veterinary colleges. He thought that it would be much better if the Council contented themselves with evidence of study of the pathology of these diseases.

Sir JOHN BANKS said that it would be impossible to carry out this rule in Dublin.

Dr. BRUCE thought that "impossible" was a word they should not allow. Surely some mode of seeing these diseases in actual progress could be devised in Ireland.

Sir WILLIAM TURNER submitted that Dr. Bruce should give more information as to where this instruction was to be obtained. In Scotland there were undoubtedly three schools, two in Edinburgh and one in Glasgow.

Dr. BRUCE: Would you object to students coming to Edinburgh?

Sir WILLIAM TURNER said that was another question. His work at this Council was not to confine studies to Edinburgh or to cause students to go there. It was his duty to look at the matter as a national question. In England there was only one school of practical instruction.

Dr. BRUCE said that although there might be only one public school, there was no town which he knew of where there was not some kind of veterinary school or forge.

Sir WILLIAM TURNER thought that if forges were in contemplation they would be of little use as places of instruction in these diseases.

Sir DYCE DUCKWORTH said it seemed that in no part of the United Kingdom had instruction been systematised. Hitherto they had been engaged in laying down the requirements of the Council. In his opinion it would be better to make Paragraph 4 nothing else than a recommendation, and he moved as an amendment: "That candidates be recommended to avail themselves of practical instruction in the diseases of animals that are transmissible to man."

Dr. CAMERON seconded the amendment.

Dr. MACALISTER said that the Council had no means of approaching candidates.

Sir DYCE DUCKWORTH said that this would be a recommendation of the different bodies to their candidates.

Dr. MACALISTER said that it was a very roundabout way to ask the bodies to state what rules they made on this subject, and it seemed to the Education Committee that it would be better to put it in a more direct form and say that candidates should produce evidence.

Dr. CAMERON said that when he had been appealed to as to where, if this rule were passed, candidates were to go to study, he had had to answer that he had not the slightest idea, but would be glad to ascertain.

Dr. MACALISTER suggested that the wiser course would be to drop the recommendation to candidates and satisfy themselves with putting the recommendation as to study in the diseases of animals transmissible to man into the laboratory instruction.

Sir DYCE DUCKWORTH expressed his desire to withdraw his amendment, as it seemed to him that Rule 2 covered all that was required.

Dr. BATTY TUKE said that he should proceed with the motion.

Sir DYCE DUCKWORTH observed that in that case he should proceed with his amendment.

On a division the amendment was carried by 10 to 7, and on being put as a substantive motion it was also carried.

Dr. BRUCE asked that the names should be taken down.

Dr. CHURCH objected, pointing out that he voted against both proposals because he thought that the matter should be dropped.

Other members also objected, and Dr. Bruce did not persist with his motion.

Sir DYCE DUCKWORTH then asked leave to withdraw the recommendation, which did not seem to him to be necessary, being, he thought, covered by Rule 2.

It was pointed out that that would be more regularly done when the Council resumed.

Dr. BATTY TUKE then moved that the next rule be as follows: "Every candidate shall have produced evidence that he has attended the clinical practice of a hospital for infectious diseases recognised by one of the licensing bodies, provided that such a course of instruction may have been taken as part of the curriculum for his registrable qualification in medicine, surgery, and midwifery."

Dr. BRUCE had great pleasure in seconding this resolution, which he regarded as most important. There was nothing more important than that candidates should be able to diagnose the character of the different infectious diseases.

Sir WILLIAM TURNER thought that this rule required some explanation. How did it bear upon Rule 1, which they had just passed? It was to be presumed that when a candidate appeared for his qualification he was examined in these infectious diseases.

Dr. BATTY TUKE: No; it is not absolutely called for by this Council.

Sir WILLIAM TURNER: The bodies might ask you what you mean by this.

Dr. BRUCE: The meaning of attending clinical practice of a hospital for infectious diseases is that the candidate shall show some certificate of that.

Sir WILLIAM TURNER said that the point was how far the provision they made in the latter part of the clause—that a course of instruction for infectious diseases which they accepted as a part of the curriculum—covered examination for registrable qualification.

Dr. ATTHILL remarked that there was no limit in the clause as to the time the candidate was to attend a hospital. Some definite time should be stated, say six or three months.

Sir WILLIAM TURNER thought that they had always declined to accept a limit of time.

The motion was agreed to.

Dr. BATTY TUKE moved the next rule as follows: "The examination shall have been conducted by examiners specially qualified; it shall have extended over not less than four days, one of which shall have been devoted to practical work in a laboratory, and one to practical examination in, and reporting on, subjects which fall within the special out-door duties of a medical officer of health. The rules as to study shall not apply to (*a*) medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890; (*b*) registered medical practitioners who have for a period of three years held the position of medical officer of health of any county, or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district."

Dr. MACALISTER seconded this motion. The new point, he said, was "over not less than four days." Most of the bodies had more.

Dr. HERON WATSON inquired how many hours a day was to consist of.

Dr. BATTY TUKE said that it consisted of a very bad quarter of an hour for many candidates.

Dr. HERON WATSON said that he was serious in the question he put. He wished to have the number of hours defined. The hours of the Council were from two to six.

Mr. CARTER: And we have committees as well.

Dr. HERON WATSON: I ask how long the examination lasts.

Dr. BATTY TUKE: It depends altogether on what the subject of examination is. The laboratory instruction would probably extend over several hours.

The motion was agreed to.

Dr. BATTY TUKE next moved: "That these rules shall apply to all diplomas granted after Jan. 1st, 1894, provided that the rules passed by the Council on June 1st, 1889, and Nov. 25th, 1890, shall continue to apply to candidates who had commenced special study in sanitary science prior to Jan. 1st, 1893."

Dr. MACALISTER seconded this motion.

Sir WILLIAM TURNER asked the committee to reconsider the last-mentioned date. He thought that it should be Jan. 1st, 1894 and not 1893. Supposing that a man had commenced his special study during 1893, what was to become of him? Had he to comply with rules which were only to come into force on Jan. 1st, 1894, or with rules in force in 1893?

In accordance with Sir. William Turner's suggestion, the last-mentioned date was altered to 1894, and with this amendment the motion was agreed to.

Dr. BATTY TUKE moved: "That the Council appoint an inspector or inspectors of examinations in public health, with special instructions to report to the Council whether the examination of each body does or does not give evidence on the part of candidates passing such examination of a distinctively high proficiency, scientific and practical, in each and all of the branches of study which concern public health."

Dr. MACALISTER, who seconded the motion, said that they had some time ago an opinion of counsel which seemed to say they had no power to do this, but now it seemed to be considered that the question was left perfectly open and that they would be within their powers in using this method of inspection and in asking the bodies to admit their inspector.

Sir WILLIAM TURNER said that this matter was considered very carefully, he thought, about two years ago, and if he recollected rightly the feeling of the Council was that if they could be satisfied that they had power to inspect they should do so. So far did that feeling extend that he gave notice that if this power to inspect seemed to be within the Act he should move that the registration fee for the admission to the Register of a sanitary diploma, which at present was only five shillings, should be raised, so that the Council might have some funds to pay for the inspection. But when Mr. Muir Mackenzie gave them his opinion, which seemed to be adverse to their power at the time, he never proposed his motion. Now, however, if they were to consider that Mr. Mackenzie had so far modified his opinion that they might avail themselves of this method of inspection in order to satisfy themselves that these diplomas were granted after a satisfactory examination, he thought that they must as men of business provide a certain fund to meet the expenses of the inspection. Therefore if this motion were agreed to he should at a later stage move: "That the registration fee for the sanitary diploma be £2."

Dr. BATTY TUKE said that at the present moment they had only about £170 in hand.

Dr. BRUCE thought that this was a very important question. It would be wise for the Council to proceed in this matter in such a way that they would not be landed in a court of law. He quite agreed with the Education Committee that some kind of visitation or inspection was necessary in order that the Council might satisfy themselves that these diplomas were properly granted, but he did not think that there was any need for the Council to appoint a special inspector, and he would strongly protest against any motion which would imply that they should do so. They had already an excellent inspector, who, he thought, would be quite fit to inspect these examinations. The committee were greatly indebted to Dr. Tuke for the great care and trouble he had taken in drawing up these recommendations.

Dr. Batty Tuke's motion was then agreed to, and the Council resumed.

The rules just passed in committee in regard to regulations for diplomas in State Medicine were adopted.

Sir DYCE DUCKWORTH asked that the recommendation, which on his motion was carried as an amendment against Rule 4 originally proposed, should be withdrawn.

Dr. BRUCE moved the reinstatement of the original Rule 4—viz.: "Every candidate shall have produced evidence that he has received practical instruction in those diseases of animals that are transmissible to man." He held that this was a most essential rule in the interest of the public.

Sir PHILIP SMYLY suggested that it might probably meet the view of the Council if the amended resolution was put as a footnote to Rule 2.

Dr. MACALISTER said the matter had not been dropped, but had been put in a new place in the laboratory training, where it would have practical effect.

Dr. BRUCE said what he proposed was the study of diseases in animals while they were alive. It should, he thought, be clearly the opinion of the Council that these diseases should be studied. They would be studied in some way if the Council laid it down that they should be studied.

Dr. PETTIGREW seconded Dr. Bruce's motion, which on a show of hands was lost.

On the requisition of Dr. Bruce the names and numbers of those who voted for and against the motion, and of those who did not vote, were taken down as follows:—Against, 16; Mr. Wheelhouse, Sir W. Turner, Mr. Bryant, Sir Dyce Duckworth, Dr. Church, Dr. Wilks, Sir John Banks, Dr. Atthill, Dr. Heron Watson, Dr. Tuke, Sir P. Smyly, Dr. Philipson, Dr. Fraser, Dr. Cameron, Dr. MacAlister, and Dr. W. Moore. For, 2: Dr. Pettigrew and Dr. Bruce. Did not vote, 5: the President, Dr. Gairdner, Dr. McVail, Mr. Teale, and Mr. Carter. Absent, 7: Sir John Simon, Dr. Glover, Dr. Haughton, Dr. Charles Moore, Sir Walter Foster, Dr. Leech, and Dr. Kidd.

Some conversation arose upon the suggestion that the recommendation carried on the motion of Sir Dyce Duckworth should be added as a footnote to Rule 2, in the course of which it was pointed out that it was undesirable to put what was only a recommendation with the rules which they were to send to the licensing bodies, and it was ultimately decided not to proceed further with this matter in the meantime.

On the motion of Dr. BATTY TUKE, seconded by Dr. BRUCE, it was agreed that a copy of the rules as amended by the Council should be transmitted by the Registrar to each of the bodies granting qualifications in Public Health.

The Course of Professional Study.

The Council then resolved into committee for the consideration of the Education Committee's report on such answers of the licensing bodies as had been received to the resolutions passed by the Council on May 29th last with reference to the medical curriculum.

Dr. BATTY TUKE, chairman of the committee, submitted the report. The first resolution dealt with (Section C) was as follows: "That the attention of the Conjoint Board in England, of the Royal College of Physicians of London, and of the Society of Apothecaries be drawn to their regulations by which the study of physics, chemistry, biology, and pharmacy previous to registration is recognised." In a communication to the Registrar from the secretary of the Conjoint Board it was set forth that the committee of that Board considered that the general recommendation of the Council (1893) that the subjects of chemistry, physics, biology, and pharmacy should be contained in every course of professional study and examination was entirely fulfilled by their regulations, which required that the student should study those subjects and be examined in them before he could obtain the diplomas of the Royal Colleges, and therefore the course of professional study and examinations of the Board did not contain the subjects in question. If the recommendations of the Council were intended to imply that the study of these subjects should take place after registration as medical students the committee of the Board considered that it would be a hardship to a number of students who would prefer to receive instruction in recognised science schools and to pass the necessary examination before entering at a medical school, where the whole of their time might be devoted to the study of professional subjects. The regulations of the Board did not permit students to present themselves for the final examination until five years' professional study, subsequent to registration, had been completed. In Recommendations 3 and 4 of the Council it was suggested that one of the five years might be spent in the study of chemistry, physics, and biology, leaving the course of strictly professional study to be completed in four years, as heretofore, whereas it was with a view to extend the period of professional study that the new curriculum of the Examining Board in England was drawn up, and it was submitted that the scheme suggested by the Council did not tend to bring about this result so completely as that adopted by the Conjoint Board. It was, the report proceeded, the opinion of the committee that the attention of the Conjoint Board in England had not been directed to Requirement III. passed by the Council on May 29th, 1893, in which it is stated that in every course of professional study physics, chemistry, and elementary biology must be contained. The committee recommend that the attention of the committee of the Conjoint Board be called to this requirement of the Council and to the fact that their regulations permit the study of certain professional subjects to begin before the preliminary examination in general education has been passed.

The second resolution (Section D) was as follows: "That the attention of the Conjoint Board in Scotland be drawn to the effect of their Regulation IV., cap. 1, by which the study of physics, elementary biology, chemistry, practical chemistry, and practical pharmacy previously to registration is recognised." No answer bearing on this resolution to the communications from the Registrar of date May 27th and June 20th, 1893, had been received. No change had been made in the regulations of this Board as issued in October, 1893. The committee recommended that the attention of the committee of the Conjoint Board in Scotland be drawn to the communication addressed to them by the Registrar on June 20th, 1893, and that an early reply thereto be requested.

The resolution in Section E of the report was as follows:—"That the attention of the Royal College of Physicians of London be called to the effect of the by-laws and regulations for admission to the Membership of the College, by which it appears that a qualifying examination in surgery and midwifery is not in all cases enforced." In a communication from the registrar of the College, dated Oct. 4th, it was intimated that on June 1st the Censors' Board recommended the College to make certain alterations in By-laws 115 and 116 relating to the membership, for the purpose of bringing them into conformity with the provisions of the Act of 1886. These recommendations of the Censors' Board were finally adopted at the last meeting of the College before the vacation, held on July 27th, and the by-laws were re-enacted with the necessary alterations. This was supplemented by a further communication on Nov. 15th last, in which it was stated that the examination for the Membership of the Royal College of Physicians of London was not at present a qualifying examination in accordance with the Act of 1886, but the College reserved the right of making it so whenever it pleased, and the Membership would then again become registrable as a primary qualification. Meantime the College would not admit anyone to that examination unless he was either registered or had passed the Final Examination for the College licence or some other qualifying examination. To secure this was the purpose, and would be the effect, of the alteration indicated in the by-laws. The comment of the Education Committee upon this was that they were of opinion that under the amended regulations: (*a*) the possession of this diploma by a registered practitioner entitled him to register it as an additional qualification; (*b*) that it did not entitle anyone who was entitled to be registered, but who was not registered, to have his name placed on the Medical Register until he had registered his primary qualifications; and (*c*) that it did not entitle a practitioner whose name stood on the colonial or foreign list to have it placed on the list of registered medical practitioners of the United Kingdom. If there was any doubt on these points the committee recommended that the opinion of counsel be taken.

Dr. BATTY TUKE moved, and Dr. MOORE seconded, the adoption of Section C of the report.

Sir DYCE DUCKWORTH said that the whole of this matter really lay in a nutshell. It hinged on one word, the word "requirement." The Conjoint Board in England did not recognise that this Council possessed any power to require anything concerning the curriculum, though they recognised that the Council was empowered to recommend, and therefore they resented "requirement" entirely.

Mr. BRYANT said that the Royal College of Surgeons felt that they were not deviating in any important manner from what the Council called the requirement, but what the College called recommendation, as to these early subjects connected with their professional education. They had followed out the five years and had done what they could to induce men to give a little longer time. They recognised the teaching of these preliminary subjects at institutions before students began their regular professional study. They considered that their scheme was far more advantageous than the schemes of other bodies, and hoped they would be induced to follow their example. They were anxious to follow out the recommendations of the Council, but as they were responsible for the examinations of a large number of men they felt bound to do what they believed to be the best.

Dr. MACALISTER did not think that the Conjoint Boards had advanced adequate arguments in support of their position.

Dr. MACVAIL said that it seemed to him that the two Royal Colleges of England were not only doing what the Council required but more, and why the Education Committee should find fault with them for that he could not understand. In the best secondary schools in Scotland and in England physics and chemistry were school subjects. Why, then, should candidates who came from these schools not be allowed to pass these subjects?

Sir DYCE DUCKWORTH, seconded by Mr. BRYANT, moved: "That the Council is satisfied with the reply of the Conjoint Board in England to the Council's resolution of May 29th, 1893."

The amendment was carried by the vote of the President. Put as a substantive motion, it was again carried by the vote of the President. Those who voted for it were the President, Mr. Bryant, Sir Dyce Duckworth, Dr. Church, Dr. Wilks, Dr. Heron Watson, Dr. McVail, Mr. Teale, Sir Philip C. Smyly, and Dr. Philipson. Those who voted against it were Mr. Wheelhouse, Sir John Banks, Dr. Atthill, Dr. Batty Tuke, Dr. Pettigrew, Dr. Fraser, Dr. Bruce, Dr. MacAlister, and Dr. William Moore.

Section D was agreed to without discussion.

Dr. BATTY TUKE, seconded by Dr. MACALISTER, moved the adoption of Section E.

Sir DYCE DUCKWORTH said that the College had determined, in order that there might be no ambiguity whatever, that in future the Membership and the College diploma would not be given to anyone who was not already entitled to be registered under the Act of 1886. After that he did not see how any difficulty could arise.

Sir WILLIAM TURNER said the College had not yet instituted a qualifying examination, and so long as that was so there would be a difficulty in admitting those who had received their Membership without undergoing a qualifying examination. He thought that it would be a wise policy on the part of the College to at once bring into operation a by-law.

Sir DYCE DUCKWORTH said that was already done.

Sir WILLIAM TURNER quoted from the letter of Nov. 15th of the Registrar of the College to this effect. "The examination for the Membership of the Royal College of Physicians of London is not at present a qualifying examination in accordance with the Act of 1886, but the College reserves the right of making it so whenever it pleases." If they were to take this as the official position of the College he hardly saw how it could be said that it was done. Of course there was this additional statement in the letter: "Meantime the College will not admit anyone to that examination unless he is either registered or has passed the Final Examination for the College licence or some other qualifying examination." He had every desire to keep the peace, but he was afraid that there was here material for a controversy. He thought it would be satisfactory if the College would so frame its by-law either as to make this examination a qualifying one or let it be distinctly understood that the examination for Membership was to be regarded by this Council as an additional qualification.

Sir DYCE DUCKWORTH said it was not for the College to say that the Council might be assured that no one would be given their diploma unless he was already on the Register or entitled to be there.

The PRESIDENT assured the Council that the College would do everything that was right and consistent with the wishes of the Council.

The section was then agreed to, and the debate adjourned.

Reports of Visitors and Inspector.

The reports of the visitors and inspector of examinations on the final examinations of the Irish Universities and Scottish Corporations, and the Irish Corporations and English Universities were received and ordered to be entered in the volume of minutes.

The Council thereafter adjourned.

SATURDAY, DEC. 2ND.

The Council resumed its sitting, Sir RICHARD QUAIN, President, being in the chair.

The Case of Mr. Christopher Palmer.

The first business on the agenda was the consideration of the case of Christopher Palmer, registered as in practice before July 22nd, 1878, who had been summoned to appear on the following charge, formulated by the Council's solicitor: "That, being a person registered in the Dentists' Register, he acted as cover of, and by permitting the use of his name enabled, an unqualified person named Frederick William Rose to carry on the business or profession of a dentist, and to practise as if he were duly qualified and registered, such practice by Frederick William Rose being carried on in Palmer's name at Houndsgate, Nottingham." Mr. Palmer did not appear.

It appeared from the report of the Dental Committee that Mr. Palmer denied the charge, and stated by letter that he sold the business to Mr. Rose at the beginning of the year, at which time all his signs and advertisements were painted out, and that he had done all he could to have his name withdrawn from the premises. They recommended the Council to postpone the case for further explanation by Mr. Palmer, and this was agreed to.

Case of Mr. Maurice Joseph Hickie.

The Council then took up the adjourned consideration of the case of Maurice Joseph Hickie, registered as Licentiate of the Royal College of Physicians, Edinburgh, who had been summoned to appear to answer the following charges, as formulated by the Council's solicitor: "For that he, being a registered medical practitioner, had since the middle of August of this year been acting, and did act, as cover of, and had lent his presence, advice, or assistance to enable one E. W. Probett, of 3, South-end-terrace, Pontlottyn, an unqualified person, to attend and administer medical relief to patients and recover charges for medical attendance and otherwise practise as if he was duly qualified."

The complaint was made by Gwilym Clement Davies, Licentiate of the Royal College of Physicians of London, who also practises at Pontlottyn.

After hearing both parties and a prolonged deliberation in private the Council directed the President to intimate to Mr. Hickie that they were of opinion that he had committed the offence of covering charged against him, and that, in the opinion of the Council, this conduct was infamous in that respect; but the Council had taken a merciful view of the case and did not direct his name to be erased from the Register. He would therefore be allowed to continue his practice, but he was cautioned to be very careful in his future life.

The Royal College of Surgeons in Ireland.

The next business on the agenda was the following notice standing in the name of Dr. Atthill—viz., "To call the attention of the Council to the defective professional education required by the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland under their conjoint scheme, and to the insufficient examination of candidates by those bodies." And to move: "That these subjects be referred to the Committee of Education and that of Examination for their consideration and report thereon."

Dr. ATTHILL said that this subject was already before the Council in the report of the Education Committee. He would say about the curriculum referred to there nothing beyond this—that it was part of a deliberate system by the College of Surgeons to carry out what had been explained to him as their determination to grant a cheap and easily attained qualification. They had made it cheap by eliminating a considerable number of subjects from the curriculum. It was his intention to show that in certain very important subjects no examination whatsoever was required. When the College of Surgeons and the College of Physicians formulated their conjoint scheme the College of Surgeons and the Apothecaries' Hall formulated another. The College of Surgeons assured them that the curriculum would be identical, and the standard of examination high. The curriculum was identical in principle, but in detail there were some very considerable alterations. The College of Physicians laid very great stress on the subject of physiology, and they were exceedingly anxious that two courses in that subject should be taken—one in the second and another in the third year. The College of Surgeons, however, objected to that, and the College of Physicians yielded, and there was only one course, which was arranged to be taken out in the second year of medical education. The College of Physicians succeeded in establishing that there should be two examinations—one of a very elementary kind in the physiology of digestion, circulation, and respiration, that in the second year, and in the third year another in physiology in its entirety. In the Apothecaries' Hall scheme the whole of the examination in physiology was in the second year. The consequence was that students anxious to get on quickly had shifted from the scheme as conducted by the College of Surgeons and the College of Physicians to the scheme as conducted by the Apothecaries' Hall and the College of Surgeons. He held in his hand a return in which he traced four gentlemen who had so acted and who were upon the Medical Register. The examination as conducted by the two bodies was most perfunctory and most unsatisfactory. But he had a more serious statement to make. In the end of the year 1890 there were some alterations made in the

curriculum of the Conjoint Board of Physicians and Surgeons, the chief of which was the changing of the examination in physiology from the second to the third year. On that occasion the College of Physicians made a second attempt to get an additional course of physiology taken out; but the College of Surgeons objected to it. This being so, and the lectures being transferred from the second to the third year, the College of Physicians considered that it was useless to examine a man in a subject which he had not been required to study. Since the first examination in 1891 no examination in physiology whatsoever was required by the Conjoint Board of the College of Surgeons and the College of Physicians, but the College of Surgeons and the Apothecaries' Hall still accepted the second examination as equivalent to their examination. How many gentlemen availed themselves of this he was unable to say. He had in this list, however, two gentlemen who transferred themselves to the Apothecaries' Hall and the Royal College of Surgeons for their third examination and passed their final examination without ever being asked to show whether they had studied physiology or being asked one question on the subject.

Sir PHILIP SMYLY, interrupting Dr. Atthill, said this was surely a matter which should be brought before the committee, not the Council.

The PRESIDENT thought it was impossible to follow Dr. Atthill's arguments without the aid of printed documents. He should make out his case and put it before the Council in a form in which they could consider it.

Dr. ATTHILL explained that his motion was that the matter be referred to the committee for consideration.

The PRESIDENT pointed out that Dr. Atthill's speech was all they had before them.

Sir WILLIAM TURNER took the view that Dr. Atthill's motion was unnecessary, because the whole question was now before the Examination Committee. That committee would have reported upon the question if the bodies had only sent in their reply.

Dr. ATTHILL said that he was entirely in the hands of the Council. Personally he would be extremely glad to be relieved of a most irksome duty.

Sir DYCE DUCKWORTH suggested that Dr. Atthill's College should send in a formal statement of the case, which evidently involved matters of the greatest importance. He thought that the Council owed Dr. Atthill a debt of gratitude for having the courage to take in hand what must be to him a very irksome duty.

Dr. ATTHILL then moved: "That the attention of the Examination Committee be called to the alleged insufficient examination in certain subjects of candidates by the Conjoint Board of the Royal College of Surgeons and the Apothecaries' Hall of Ireland."

Dr. MCVAIL said he had no hesitation in seconding this motion, and he thought he had ample justification for that in the published syllabus of the Royal College of Surgeons in Ireland. The following statements occurred bearing on the Conjoint Examinations for licences—viz, "no examination in mental disease" and "certificates not required in physics, biology, vaccination, mental diseases, or ophthalmology." He did not think he could say one word in defence of such a scheme of examination.

Sir PHILIP SMYLY asked whether it was a proper thing to bring a charge of this kind against a body when the subject matter was actually under the consideration of a committee of that body. He believed it to be absolutely irregular. He wished the Council to understand that, though he represented the Royal College of Surgeons in Ireland, he did not wish to burke discussion. He simply asked whether it was a regular or proper thing to do. Surely a question of this kind clearly came within the duties of the Examination and Education Committees. As to the Conjoint Board not sending a reply to the Council, he might explain that the report of the committee was not sent to these conjoint bodies until Thursday, and there was no possibility of their considering it and sending a reply. He asked the Council not to allow such a resolution to be put down upon the minutes.

Dr. ATTHILL said that if Sir Philip Smyly wished it he would postpone the matter until next session.

Mr. BRUDENELL CARTER thought that in the absence of any reply from the bodies concerned they were probably not justified in proceeding with the consideration of this matter.

After some further discussion it was agreed that the motion should be withdrawn.

Complaint about a Provident Dispensary.

Sir JOHN BANKS read a letter which had been received from Mr. Alexander Smith complaining of certain matters connected with a provident dispensary in Dublin.

The Council agreed to take no action in the matter.

Sir WILLIAM TURNER suggested as the proper entry for the minutes: "Read a letter from Mr. Alexander Smith" and stop at "Smith."

Registration Fee increased.

Sir WILLIAM TURNER moved: "That after Jan. 1st, 1894, the fee for registering a qualification in Public Health be £2." He thought that if the Council agreed to the inspection and visitation of these examinations there ought to be some provision for finding money to pay for such inspection and visitation, and he considered that those gentlemen who wished the qualifications to be registered might fairly be called upon to pay something more than the present fee of five shillings.

Mr. WHEELHOUSE seconded the motion.

Dr. MACALISTER, though in favour of a good fee, thought £2 too much.

Sir DYCE DUCKWORTH could not agree with that view.

Sir WILLIAM TURNER said there was a precedent for the £2 in the case of foreign qualifications.

The motion was agreed to.

The Council then adjourned until Monday.

MONDAY, DEC. 4TH.

The Council met again, Sir RICHARD QUAIN presiding. The attendance of members was now considerably reduced.

The Council and the Licensing Bodies.

The Council at once went into committee and resumed consideration of the Education Committee's report on answers by licensing bodies to resolutions passed by the Council at the May meeting.

Further discussion took place on Section E of the report, dealing with the Membership of the Royal College of Physicians of London.

Dr. BATTY TUKE moved an instruction to the Registrar in terms of the opinion set forth by the committee—viz.: "(*a*) The possession of this diploma by a registered practitioner entitles him to register it as an additional qualification; (*b*) that it does not entitle anyone who is entitled to be registered, but who is not registered, to have his name placed on the Medical Register until he has registered his primary qualifications; and (*c*) that it does not entitle a practitioner whose name stands on the Colonial or Foreign List to have it placed on the List of Registered Medical Practitioners of the United Kingdom. The possession of this diploma entitles him to register it only as an additional qualification."

Sir DYCE DUCKWORTH asked the Council to accept the assurance that in future the diploma would be given to nobody who was not entitled to be registered. If there had been ambiguity in the past there could be none now.

Dr. MACALISTER seconded Dr. Tuke's motion, with the proviso that if any doubt arose the opinion of counsel should be taken on the three points.

Sir DYCE DUCKWORTH said there was no more necessity to put this matter into the hands of lawyers than there was to start the action last year, which was totally unnecessary.

Mr. BRUDENELL CARTER was in favour of the opinion of counsel being taken.

Dr. BRUCE suggested that the diploma should bear on the face of it that the candidate had passed a qualifying examination in medicine, surgery, and midwifery.

The PRESIDENT thought that this was an excellent suggestion, though he did not see why the Royal College of Physicians should be singled out.

Dr. BATTY TUKE, seconded by Dr. BRUCE, moved that the opinion of counsel be taken upon the three points.

Dr. MCVAIL, seconded by Dr. LEECH, moved as an amendment: "That the representative of the Royal College of Physicians of London having assured the Council that by a new by-law of the Council the Membership of that College will not again be presented to any registrar as a primary qualification, but only as a higher qualification by persons already registered, or having passed a qualifying examination entitling them to be registered, the Council does not require to take any further action."

This amendment was at once acquiesced in and carried both as an amendment and a substantive motion.

Dr. BATTY TUKE then introduced Section G, dealing with the Conjoint Board in Ireland of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, and

moved: "That the Council intimate to the board that, unless their prescribed courses of study and examination be amended so as to bring them into compliance with the requirements of the Council on or before Jan. 1st, 1894, the Council will feel it to be their duty to report to the Privy Council, in accordance with Section 4 of the Medical Act (1886), 'that it appears to the General Council that the standard of proficiency in medicine, surgery, and midwifery, and in certain branches thereof, required from candidates at the qualifying examination for the licence of the Conjoint Board in Ireland by the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, is insufficient.'" It was, he said, with great pain that the committee had come to the conclusion to recommend this to the Council. He believed it was the first time in their history that such a recommendation had been made. He did not think the recommendation would have been nearly so strong but for the advertisement which had been referred to. In that it was held out to students as an actual inducement to take the qualification that certain requirements of this Council were not insisted on by the board. He could not help thinking that this intimation from the Council would have a good effect and lead to reform.

Dr. BRUCE seconded the motion.

The PRESIDENT suggested that a longer period than three weeks should be allowed before making the representation to the Council.

Dr. BATTY TUKE said he was prepared to substitute May 1st for Jan. 1st.

Mr. BRUDENELL CARTER pointed out that if there was an examination before May this Council could not afford to allow the Conjoint Board to let loose upon society a set of insufficiently examined candidates. He would suggest the insertion of the words, "prior to the next examination."

Sir PHILIP SMYLY thought that this suggestion was a good one. He might just mention that the Royal College of Surgeons in Ireland were most anxious to raise this qualification to the highest point possible for them. Even now it was very much improved compared with what it used to be. They were extremely anxious that there should be an efficient and sufficient examination. He had received a letter that morning saying that the Conjoint Board had recommended to the two bodies that mental disease and vaccination should be reintroduced.

The PRESIDENT reminded the Council that this was the first body that had ever been threatened even with being brought before the Privy Council, and he thought it ought to be allowed full time for considering its position.

The motion was then agreed to, with the words "prior to the next examination" inserted.

Dr. HERON WATSON, seconded by Dr. MCVAIL, moved: "That the whole conjoined examinations of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin, for a registrable qualification be again visited or inspected, and that particular attention be paid by the visitors or inspector to the points whether the subjects which are required and the examination in connexion with them are in accordance with the requirements of the Council."

This motion was agreed to.

Section H of the report was approved without any discussion.

Dr. BATTY TUKE moved the approval of Section I.

Mr. BRYANT thought that the recommendation about six months' work with a medical practitioner might very well be eliminated altogether, for it was impracticable.

Dr. MACALISTER hoped it would not be struck out. The University of Cambridge had no thought of adopting it; but the point was that if anybody desired to act upon it they ought to do so in a formal and regular manner.

Dr. HERON WATSON spoke of the recommendation as a piece of grandmotherly legislation.

Dr. MACVAIL thought that the sooner the Council got out of a bad position the better.

After a discussion of considerable length it was decided simply to postpone the question.

Section X was approved without debate.

When the Council resumed and the proceedings in committee were reviewed,

Dr. MACALISTER took exception to the motion carried with respect to the Royal College of Physicians of London. He thought it did not represent the facts of the case accurately, and he proposed as a substitute the following—viz.: "That, the Council having been assured that, under the new by-laws of the Royal College of Physicians of London, qualifying examinations for the diploma of Member are, except in the case of persons who are already registered, the same as the qualifying examinations for the licence of the College, together with a further examination in medicine, the Council instruct the Registrar to register such diplomas as in accordance with the Medical Act of 1886."

This was agreed to.

Scottish Universities Commission's Medical Ordinance.

The Council then took up the report from the Education Committee on the answer received from the secretary of the Scottish Universities Commission with reference to Section 10 of their Ordinance for Degrees in Medicine. It was as follows:—"The committee are informed that it is within the power of the commissioners to amend an ordinance already approved by the Queen in Council by means of a supplemental ordinance. The committee concur fully in the statement contained in the following paragraph of the President's letter:—

"'A student residing at the seat of one of the Scottish universities or elsewhere in the United Kingdom, who has not succeeded in passing a recognised examination in general education, may, nevertheless, under the terms of Section 10, attend qualifying courses of instruction in physics, chemistry, botany, and zoology, and he might thus count a nominal year of professional study, providing only that he abstained from presenting himself for the Preliminary Examination till the end of the year. It need not be here insisted on that scientific study under such conditions, at a time when the student must also be occupying himself with the preparation of the preliminary subjects, can be neither sound nor comprehensive.'

"The committee are of opinion that no answer to this objection is contained in the reply from the secretary to the commissioners

"The committee recommend that the attention of the commissioners be again directed by the President to this objection to Section 10, and that the commissioners be requested to consider the propriety of framing a Supplemental Ordinance to remove the objection."

Dr. BATTY TUKE said that the reply from the commissioners had given him great disappointment, because having been called upon by them to supplement the information in the letter he had felt that the commissioners recognised that a mistake had been made and that important concessions would be granted. Yet no concession whatever had been made. The section of the ordinance was that, "if any candidate shall, before presenting himself for the preliminary examination, have attended in any university of the United Kingdom or in any university or institution specially approved, under any teacher specially recognised for the purpose by the University Court, a course or courses of instruction in physics, chemistry, botany, or zoology equivalent, in the judgment of the Senate, to the qualifying course in the same subject in the University of Edinburgh (Aberdeen or Glasgow) such attendance shall (notwithstanding anything hereinbefore ordained) be held as entitling him to be examined in these subjects; and if the candidate shall have attended such course or courses in each of the said subjects he shall be held to have completed his first year of medical study, provided always that the evidence of such attendance at such equivalent course or courses shall be presented to the senate at the time when the candidate presents himself for his preliminary examination, and the senate shall, if satisfied, grant a certificate to that effect." He wished to consider that section first in its effects on the students of Scotch universities, and secondly in its effects on medical education at large. In both respects it was injurious. It made the student the arbiter of his own fate so far as the question of whether he would be a four years' or a five years' man, and it helped one who had failed to pass his preliminary examination to matriculate in science and arts, then change and go in for medicine, and to take his preliminary examination afterwards. It was beside the mark to say that the course must be "equivalent" in the opinion of the senate, because the class of students affected were students who had carried on their studies in those very universities. As to the effect on medical education at large, this section made a loophole in the five years' scheme of the Council. The Council might have a remedy by way of threatening to report to the Privy Council, but it might be better that the matter should be further considered by the President before coming to such a decision. But the section, if allowed to go unmodified, would upset the work of this Council after two years' effort

in establishing the five years' scheme, and there would be the further deplorable result that it would tend to discredit Scotch university education.

Dr. MACALISTER said he would give an illustration of how the section would work. Suppose two students start together to go through the five years' curriculum for the medical degree, say at the University of Edinburgh, and one decides to present himself for the preliminary examination in general education at London and the other at Edinburgh. If both were "plucked" the one who presented himself at Edinburgh was put back a year, while the other was not put back a year, but could go from London to Edinburgh, pursue his studies at the University there, and count that year as his first year provided he was careful not to present himself for the preliminary examination in general education until the end of that year. He could not believe for a moment that the commissioners contemplated this, and therefore their attention should be further called to it.

Dr. HERON WATSON said he held no warrant to speak for the commissioners. He was present simply as a member of the Council, and anything he had to say was intended rather to prevent the Council coming to a decision on the proposal before them under any misunderstanding. He would refer first to the suggestion that the University Commissioners were recalcitrant for not obeying the instruction to bring in a supplementary ordinance. It was quite true that in certain circumstances such a procedure was proper; but when an ordinance had been submitted to all the universities concerned, when it had lain for three months before Parliament without objection being taken, when it had been submitted to Her Majesty with the approval of the Privy Council, he understood that it was not considered the right course for the commissioners who framed it to propose to make any change upon it. By that time it had passed entirely out of their hands and had become a portion of the Act of Parliament under which they acted. A supplemental ordinance was not regarded in such cases as being a satisfactory mode of dealing with the matter. Whether there was any other mode of dealing with it he could not say, not being a lawyer. The next point he had to submit struck at the root of the objections taken to the ordinance, and that was the presence of the single word "qualifying" as applied to the word "courses" in physics, chemistry, and botany. To avoid taking up time he would read a short note which would explain what he desired to say. It was as follows. The intention of Section 10 was to provide that students in the Scottish universities, who had entered upon a course of study prescribed for a degree in arts and science, and had in that course taken as a part of it the subjects of physics, chemistry, and biology (a qualifying course or courses), should they afterwards wish to transfer themselves to the study of medicine for a medical degree, should not be obliged to take these courses of study over again for a second time: but that these courses which they had already taken in arts and science should count as classes in their medical curriculum, and entitle them to be regarded as having already met the requirements of the ordinance, by which they might come up for examination in these subjects. Now that these classes in physics, chemistry, and biology should be qualifying courses in arts or science implied that the student must have passed the preliminary examination in general knowledge, which was imperative before the attendance upon any class could be a qualifying one towards a degree in any department. In the paragraph quoted from the letter to the Universities Commissioners the President distinctly stated: "A student may under Section 10 attend qualifying courses in physics, chemistry, biology, and zoology, and he might thus count a nominal year of professional study, provided only that he abstained from presenting himself for the preliminary examination till the end of the year." So far from this statement being exact in such circumstances as the President's letter suggested, these courses in the technical language of the ordinance would not be "qualifying" classes, for as he (Dr. Heron Watson) had already stated, a qualifying class or classes in any subject required for graduation was one which had been preceded by the candidate having passed the requisite preliminary examination. The Council and the commissioners' ordinance were therefore entirely at one upon this point—namely, that the preliminary examination in general knowledge (and that of the university standard) must have been passed before those classes in physics, chemistry, botany and zoology could be accepted as qualifying classes for graduation, whether in arts, science, or medicine. In the Scottish universities students who were matriculated might attend upon any classes they might wish, but such attendance was not a "qualifying" attendance towards anything within the sphere of the university. In an earlier part of the letter which the President forwarded to the commissioners this distinction was apparently recognised, as the letter argued that this provision of No. 10 Section of the ordinance of the commissioners is unnecessary, inasmuch as the students intending to graduate in arts or in science were by the ordinances required to pass a preliminary examination in general education, which, the letter said, would be readily recognised by this Council as satisfactory. But the writer of the letter forwarded by the President seemed to have omitted from his consideration the important fact that the ordinances of the commissioners were conceived for application to the working of the universities themselves, and that a scheme which met with the recognition of the General Medical Council did not therefore secure that when a case or cases such as were provided for in Section 10 of the Medical Ordinances did occur and come up for consideration before the university authorities. Such a sanction could be afforded it, as it would be said, and truly said, by the university authorities: "no such case is provided for by any special ordinance; the applicant must therefore conform to the regulation as laid down in the ordinance upon this subject." The real significance of Section 10 of the ordinance found its explanation in the desire to prevent the reduplication of classes and examinations, certainly not to encourage any divisive courses. The intention, therefore, of the section was to protect the student who had passed the preliminary examination, which practically was common to arts, science, and medicine, but who did not, at the time of passing it, register as a medical student, from being compelled to take out his classes again in physics, chemistry, botany, and zoology, and to discover that while the General Medical Council would antedate his preliminary examination and accept the attendance upon these classes towards his degree the universities could not afford him a similar relief.

Dr. GAIRDNER said he knew of one case where an ordinance of the commissioners had passed the Privy Council, and had been signed by the Queen, and, according to Dr. Watson's opinion, could not be abrogated; but the commissioners subsequently issued an explanatory statement which practically explained the ordinance away completely. If such an explanation as Dr. Watson had given were published by the commission in this case, perhaps that would do instead of a supplemental ordinance.

Dr. PETTIGREW thought that Dr. Watson's explanation was complete and satisfactory. It showed that no one could attend the qualifying classes, either in arts or science, without having undergone the preliminary examination, and that the preliminary examinations in arts and science and in medicine were practically the same. If Dr. Watson framed a resolution to the effect that the commission should not be asked to go further he would support it.

Dr. MACALISTER said he did not interpret the ordinance as Dr. Watson had interpreted it. Could Dr. Watson explain what was meant by "provided always that the evidence of such attendance at such equivalent course or courses shall be presented to the senate at the time when the candidate presents himself for his preliminary examination"?

Dr. WATSON said he could not explain, but he knew there was a misprint somewhere in the ordinance, words having been struck out, but by mistake left in the print; but the effect of the ordinance was that the courses would not qualify unless taken after passing the preliminary examination in either arts or science.

Dr. MACALISTER said that if the commissioners published such an explanation it might be sufficient.

Mr. CARTER said it was evident that the matter was one surrounded by ambiguity, and the commissioners could remove that ambiguity by publishing an explanation for the guidance of students and all concerned. He thought that the Education Committee should ask the commissioners to publish such explanations of the ordinance as seemed to be necessary.

Dr. GAIRDNER thought that to prevent students being misled into the belief that they might take these courses without preliminary examination the commissioners might fairly be asked to give some explanation.

Dr. MACALISTER moved to amend the recommendation of the committee by inserting after the words "supplemental ordinance" the words "or take such other steps as may be practicable," and this proposal was agreed to.

The committee's report and recommendation as thus

amended were put to the meeting and adopted by 15 votes to 4.

British Pharmacopœia Committee.

The report of this committee was received and adopted without discussion. It stated that since last meeting there had been a further reprint of 3000 copies of the British Pharmacopœia of 1885. A number of communications on the subject from the Chairman of the committee to the Lord President of the Privy Council had been distributed by the India and Colonial Offices for use by the medical and pharmaceutical authorities in India and the colonies. This action must be regarded as the first step, however distant it might be, towards the issue of the next edition of the British Pharmacopœia. The committee recommended, therefore, that the Council should now direct the preparation of another edition of the work and that Professor Attfield be invited to continue his services as reporter and editor.

The Final Examinations, 1893.

The Council, in committee, then entered upon the consideration of the report of the Examination Committee upon the "reports of the visitors and inspector of examinations, and the remarks by the bodies visited on the final examinations held during 1893 of the Irish corporations and English universities." The first report dealt with the final examination of the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland. The visitor and inspector reported that these examinations were "sufficient," but they criticised freely several points in the conduct of them. They considered that the time allotted to the papers in medicine, therapeutics, and pathology—three hours—was too short. In the clinical examinations the defective arrangements permitted free communication between the candidates. The examiners were considered to mark leniently in the clinical medical examination. In operative surgery the majority of the operations were performed in an unsatisfactory manner, and "grave notice was taken of the conduct of the Committee of Management in revising the final judgments of the examiners." In their reply the Committee of Management considered that the time allowed for written answers was sufficient, as in most cases the candidates handed in their papers before the allotted time expired. They express strong disagreement concerning the remarks of the visitor upon the operative surgery examination. They acknowledged evidences of defective literary education among the candidates, but refused to desist from their examination in general education because they knew of no other in Ireland that could fairly replace it; but they agreed to recommend the resumption of the percentage system of marking—50 per cent. to be a passing standard.

Mr. BRUDENELL CARTER remarked that from these reports the examinations of the Conjoint Board seemed to be of an insufficient character. He trusted that the Council would make some special representation to this body of the extreme dissatisfaction with which the Council had perused this record of their work.

On the motion of Sir DYCE DUCKWORTH, seconded by Mr. BRYANT, the report was adopted. Thereupon

Sir PHILIP SMYLY said that, on behalf of himself and his colleagues, they had given this report their consideration, and he was sure that when their examinations were next visited they would be satisfactory to the Council.

Mr. BRUDENELL CARTER moved: "That the serious attention of the Conjoint Board be drawn to the character of their final examinations as disclosed by the report, and that these bodies should be urged to spare no endeavour to bring about a more satisfactory state of things."

Sir PHILIP SMYLY did not see how that proposal could be received when they had just passed a resolution that the examination was sufficient.

Dr. BRUCE seconded Mr. Carter's motion, which was agreed to without further discussion.

The report on the examinations of the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland was held over till May, no reply having been received from the Court of Examiners.

Reporting for the final examination at Oxford University, the visitor and inspector state that it is "sufficient" and that the arrangements made for it deserve special recognition for their excellence. They recommend that two cases in surgery should be given to every candidate, and that special examiners in ophthalmic and aural surgery should be appointed; also that there should be an examination in operative surgery. They also recommend more practical examination in midwifery and a larger supply of instruments to be available, and that the percentage system of marking should be adopted by all the examiners.

The report was received and adopted.

The report of the University of Cambridge final examinations in medicine, surgery, and midwifery showed that, in the opinion of the visitor and inspector, they were "sufficient and in many respects highly commendable"; but they made several suggestions, and the Examination Committee hoped that the examinations in midwifery generally might be brought up to an equal standard with those in medicine and in surgery. They also expressed the opinion that the system of marking adopted in the three departments should be determined by a uniform standard.

The report was adopted.

It being almost six o'clock, the Council adjourned until Tuesday.

TUESDAY, DEC. 5TH.

The Council resumed, Sir RICHARD QUAIN presiding.

Final Examinations, 1893.

Consideration of the Examination Committee's report on these examinations was resumed.

Sir DYCE DUCKWORTH moved the adoption of that part of the report which referred to the examination of the University of London. The committee directed the attention of the Council to the remarks made by the Senate of this university as being but an *interim* reply to the comments of the visitor and inspector, and as these remarks indicated that it was doubtful if any further communication would be made to the Council the committee must consider the present reply as quite inadequate and as affording no evidence of an intention to alter the arrangements which had been in force for at least the last five years. The Examination Committee was therefore of opinion that the time had arrived at which the Council should make a formal representation to the Senate of this university notifying the serious defects elicited by the visitors and inspector in their last report, defects which had not received any attention, since they were pointed out on two previous occasions by the Council.

Dr. WILKS assured the Council that further answer would be made by the Senate, who had every desire to meet the wishes of the Council.

The motion, after being seconded by Mr. BRYANT, was adopted.

Sir DYCE DUCKWORTH moved the adoption of the section having reference to the University of Durham. The committee considered that written clinical notes on one case would be desirable from all candidates for a degree in medicine, and that at least two patients should be examined by each candidate. They called attention to the absence of adequate examination in the application of forceps and of instruments liable to be required in practical midwifery, and considered that questions should be given on the subjects of mental diseases, skin diseases, and diseases of children. They further were of opinion that candidates for a degree in surgery should be examined in ophthalmology. There was no notice taken specifically of the omission to exact a written report on a surgical case. The committee was not satisfied with the opinion of the senate as to the sufficiency of ten minutes' oral examination in medicine, surgery, midwifery, and gynæcology. No notice was taken of the absence of tests in mental diseases, skin diseases, or diseases of children, or of the omission to examine in ophthalmology. The committee therefore begged leave to direct the attention of the Council to these omissions.

Sir WALTER FOSTER seconded the motion.

Dr. PHILIPSON said that the Senate had always been most anxious that the examination of the university should be upon a high standard and of such a character as to meet the approval of the Council. He felt sure that if these criticisms were passed on to them they would be satisfactorily answered.

Dr. MACALISTER hoped that, even if the report was adopted, the Council would not be committed to all the opinions expressed in it.

Dr. MCVAIL thought it was a pity that the Council should give any sanction to the small criticisms contained in the report. Their duty was rather to address themselves to broad questions.

Sir DYCE DUCKWORTH said that the Examination Committee must not withhold any of the points raised by the

visitor or inspector of an examination. He himself regarded the examination of the University of Durham as being a highly satisfactory one.

After some further discussion the report was adopted.

Dr. MACALISTER moved that the report of the committee be transmitted to the Warden and Senate of the university, with a recommendation that the points on which they had not yet forwarded a reply might receive their best attention.

Several members submitted that this motion was unnecessary, and eventually it was negatived.

Dr. PHILIPSON informed the Council that it would be his pleasure to make representations to the Senate on the points in question.

Victoria University

The Council next considered the Examination Committee's report on the Victoria University, Manchester. It showed that, according to the statements of the inspector and visitor, the standard of the final qualifying examination was a "high" one and "sufficient." They recommended, however, an oral examination in addition to a written one on forensic medicine, compulsory instruction in ophthalmic surgery for all candidates for the qualifying examination, and a test in operative surgery, which apparently had not been applied at Owens College. On the last point the Board of Studies replied that the omission was owing to exceptional circumstances, and they concurred in the opinion that the examination in forensic medicine might advantageously be supplemented by an oral examination.

On the motion of Sir DYCE DUCKWORTH the report was adopted.

The PRESIDENT said that he thought the Council were greatly indebted to both the Education and the Examination Committees, and especially to their chairmen, for the great pains they had taken in the preparation of these reports.

The Council then resumed, and the motions adopted in committee were submitted *seriatim* and agreed to.

A Fruitless Inquiry.

Sir DYCE DUCKWORTH presented an appendix to the Examination Committee's report. It was a report upon statistical tables showing the number of candidates and the percentage of rejections per cent. at examinations for degrees, diplomas, and licences by the medical authorities in the United Kingdom during the years from 1861 to 1892. Answers to the Registrar's letter had been received from fourteen of the universities and corporations; but the committee, after due consideration of the various reports, regretted to find that no information of any practical value was forthcoming from any of them, and they did not consider that such was likely to be obtained by this, or by any other, method of inquiry founded on a basis of mere statistics. The committee expressed their sense of the labour entailed on the Registrar in making this investigation, and felt that but for his special faculty of dealing with statistical matters they would have been quite unable to pursue such an inquiry. It was the more regrettable, therefore, that it should prove to be barren of any trustworthy or fruitful results. The practical working of nineteen licensing bodies in the three kingdoms could not be calculated mathematically. Circumstances affecting the standards of examination varied, and might be expected to vary, from year to year, and they were especially likely to do so in times of transition and amendment such as in recent years had influenced medical education in the United Kingdom. Sir Dyce Duckworth added that of the few bodies that had not yet replied it was believed that three of the Scottish boards had the matter still under consideration, but would be unable to report until March. So far, however, as the committee could gather, the results of the inquiry were *nil*. He moved the adoption of the report.

Mr. BRYANT seconded the motion and it was agreed to.

Professional Education Requirements.

Mr. BRYANT moved: "That the requirements of the Council in regard to professional education be amended as follows."—That instead of (*a*) under Heading IV. the following be adopted: "That when in the course of his studies, previous to registration, a candidate shall have attended a course or courses in one or all of the departments of physics, chemistry, biology, or practical pharmacy in any university, science school, or teaching institution approved of by any of the medical authorities, such attendance shall be held as entitling him to present himself for examination; provided always that such attendance shall not be held to be included in the five years of medical study." He submitted that this would really carry out the intentions of the Education Committee. It was also giving effect to the spirit of the Council's rule that a student should have full five years for his professional work, and it would help to make physics and chemistry part of, and therefore promote, higher education in the schools of the country, whether the pupils intended to adopt the medical profession or to follow other callings.

Dr. GAIRDNER seconded the motion. He considered that it was a great misfortune to medical education that there was not more scientific education given under the ordinary school system.

Dr. MACALISTER hoped that the Council would hesitate before adopting such a motion at the end of their sittings, in a small meeting, upon a point which they had adopted only last May. The rules were issued in the revised form then upon a long and carefully considered report of the Education Committee. They were believed to be final, at least for a considerable time; and yet, while the various bodies were still in the process of adapting their work to those rules, it was now proposed to change them. On the ground of consistency he would suggest that for twelve months at least the Council should adhere to the requirements which they laid down in May.

Dr. PETTIGREW said he could not see his way to accept this motion. It practically would add a sixth year to the medical curriculum, and in the next place it inferentially relegated such very important subjects as chemistry, biology, and pharmacy to a back place. He might not object to a six years curriculum by-and-bye, but he did not think it would be fair either to the bodies or to the students to add a sixth year in this way. The Scottish universities attached the greatest importance to these subjects, and he thought they should not be left to be dealt with before the preliminary examination. The Council would stultify itself if in so short a time they tinkered at the curriculum which they approved so recently as last May.

The PRESIDENT said that an amendment had been put into his hands by Dr. MacAlister in these terms: "That it is inexpedient to alter in the present session the resolutions in regard to the professional education passed by the Council so recently as May last." He would like to remind those present that barely half the Council were in attendance now, and that it might be injudicious, perhaps unfair, even if the whole Council were present, to rescind the decision of May.

Dr. PETTIGREW seconded Dr. MacAlister's amendment, which Dr. LEECH supported.

Mr. BRYANT said that in the circumstances he would ask leave to withdraw his motion.

The motion was thereupon by leave withdrawn.

Cases referred to the Council.

The following notice stood on the paper in Dr. Glover's name: "That the Registrar be directed to prepare for the information of the Council a list of the cases and subjects that have been referred to the Council for its consideration by the medical authorities, by coroners or other public officials, by medical men, and by the Medical Defence Union or other medical societies."

Mr. WHEELHOUSE said that, in the unfortunate absence through illness of Dr. Glover, he moved this motion.

Mr. MILLER explained that a similar proposal had been made before, when the late Mr. Marshall was president, and it was then considered inexpedient to prepare such a list, as, if made public, he (Mr. Miller) might be made liable to prosecutions for libel.

The motion, not being seconded, lapsed.

Professional Status of Midwives.

Mr. WHEELHOUSE moved: "That the petition of Dr. Rentoul and 111 other practitioners, together with any other documents that may be received in regard to the subject, be referred to the Executive Committee for consideration." He said that he recognised that it would be impossible for the committee to report on the subject at the present meeting; but he could not allow a petition of this size to come before the Council without some comment on the character of the question referred to therein. There was an admitted necessity for the better education of midwives and for some means of identifying that education. But the petition was against the formation of an entirely new class of medical practitioners that would be established contrary to the existing Medical Acts. The law required that no one should be placed on their Register who had not the proper qualification, and no qualification should be placed on the Register, except after full examination in medicine, surgery, and midwifery

together. To produce this new class of midwives was to create a class of medical practitioners in midwifery only, persons who had not been taught medicine or surgery, and not even midwifery, because the course they went through could not be said to be education in midwifery. Of course, everyone desired that those who undertook the duties of midwife should be fully instructed, and that those who were so instructed should be registered, provided that those so registered were recognised, not as independent medical practitioners, but as practitioners under the supervision of those who had been properly educated and who would be responsible. But it appeared that there were some men who examined midwives and gave a diploma which Dr. Rentoul said entitled them to practise. He (Mr. Wheelhouse) thought it could be shown that the document was regarded as a diploma and advertised as such. But that both sides of the question might be fully discussed he asked the Council to refer the matter dealt with in the petition to the Executive Committee for consideration and report.

The PRESIDENT said that the question was by no means a new one. He had in his hand a motion which was some years ago moved by Mr. Wheelhouse and seconded by Sir W. Foster. It had reference to the action taken by Mr. Pease in bringing forward a bill on the subject in the House of Commons. The question was then fully discussed in the Council, and the first resolution then adopted was the statesmanlike and proper view to take of the matter. It was moved by Sir Walter Foster, and was seconded by Dr. Glover, and was as follows: "That this Council regards the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes, and urges upon the Government the importance of passing into law some measure for the education and registration of midwives." Another resolution was then moved and agreed to: "That, if any department of Her Majesty's Government were constituted controlling authority in relation to local arrangements made under statute for the licensing and registration of midwives, the Medical Council would, if the Government Department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives or as to the local arrangements for licensing or controlling them." These resolutions were forwarded to the Lord President of the Council, whose reply, dated May 19th, 1890, was to the effect that he had received a deputation in regard to the Registration of Midwives Bill, and had felt it his duty to inform the deputation that, although approving of the objects of the Bill, it would be impossible to recommend its passing in its then form. His lordship fully recognised the importance of the question of the education and registration of midwives and of dealing with it satisfactorily, and would consider the best means to accomplish that object. Thereupon this Council appointed a committee to consider the question, and he thought the Council might leave the subject in the hands of the committee and not take any side.

Mr. WHEELHOUSE said he would be perfectly content if that committee took the petition into consideration.

Dr. MACALISTER hoped the Council would not send the petition to the committee. It contained so much nonsense in some respects that it was not worthy of the Council's attention.

Mr. BRUDENELL CARTER thought it would be a waste of time to discuss the question. He pointed out that the proposal had not been seconded.

No member offering to second the motion, it was lost.

Visitors' and Inspector's Reports.

On the motion of Mr. BRYANT, seconded by Sir PHILIP SMYLY, it was resolved: "That in place of the present Standing Order, Chap. XXI., Clause 20, the following be substituted: A copy of the reports of the visitors and inspector, and the remarks and observations thereupon by the body visited, shall be supplied to each member of the Council, and that copies not exceeding fifty in number shall be sent by the Registrar to the licensing body in regard to which the report is made."

The Board of Trade.

A communication from the President of the Board of Trade was received and dealt with in private.

Consideration of Penal Cases.

The Council resolved: "8. That a committee be appointed by the Executive Committee to consult with and to advise the President in the consideration of penal cases to be submitted to the Council for its decision. That this committee for the present shall consist of Dr. Glover, Sir Walter Foster, Mr. Carter, and the Treasurers of the Council."

Registration Fees.

Dr. HERON WATSON drew attention to the subject of the fees for the registration of titles. The fee for registration of qualifications after January, 1859, registered together was £5, and for each diploma subsequently registered 5*s*. He, however, had received from the Registrar at the Council's branch office in Edinburgh a copy of correspondence, which he would read. The first letter was from Mr. Robertson, the registrar at Edinburgh, to Mr. Miller. It stated that Mr. Robertson had been asked to register the additional qualifications of a gentleman who stated that he had shown his diplomas at the London office and was there informed that the fee was only 5*s*. in respect that the two could be taken conjointly. The practice at the Edinburgh branch was to hold that there were two qualifications and to charge 5*s*. for registering each, although application was made to register them at one time. Mr. Miller replied, stating that it had always been the practice of the London office to regard the examinations of conjoint bodies as conferring but one qualification, and when registering it as an additional qualification to charge but one fee of 5*s*. He (Dr. Watson) pointed out that in the Medical Register and in the Standing Orders it was distinctly "for each additional title or diploma, 5*s*."

Mr. MILLER explained that "before the appointed day"—Jan. 3rd, 1887—each additional qualification was charged, but after the appointed day, when the new Act came into operation, it became the practice in the London office, by direction of the then President (Mr. Marshall), to regard a conjoint diploma as one qualification, and from that time 5*s*. was charged for the two qualifications or for the triple Scotch qualification if brought jointly.

Dr. HERON WATSON said that with a view to bringing about uniformity of practice in this matter he would move that the question of registration in the three branches of the Council's Register, especially with regard to uniformity of fees charged for original registration and for registration of additional titles, be remitted to the Executive Committee.

Dr. BATTY TUKE seconded this motion, which was agreed to.

Inspector of Sanitary Examinations.

Sitting *in camerâ*, the Council considered a motion by Dr. BATTY TUKE: "That Dr. Duffey be appointed Inspector of Examinations for Diplomas in State Medicine for the year ending Dec. 31st, 1894, at a salary to be fixed by the Council."

On resuming in public the PRESIDENT announced that the Council had resolved to appoint Dr. Duffey to be Inspector of Sanitary Examinations, and that the question of remuneration and other arrangements be referred to the Executive Committee.

Proposed Amendment of a Standing Order.

On the motion of Mr. BRUDENELL CARTER it was resolved to refer to the legal adviser of the Council for his opinion the following proposal: "That Standing Order 14 be amended by the addition of the following words: 'Provided that, when questions (*a*) and (*b*) have been answered in the affirmative, the Council may either proceed to the consideration of question (*c*) forthwith, or may, on motion from the chair, postpone any decision upon this question, either *sine die* or until the session next after that in which the inquiry has been held; and on any subsequent occasions may, if they see fit, consider any further evidence which may be laid before them.'"

Dentists' Advertisements.

Mr. BRUDENELL CARTER moved: "The attention of the Council having been called to the practice of advertising as pursued by certain dentists, it is hereby declared that, while the Council will not at present interfere with this practice so long as it is confined to a mere notification of the place of abode and the profession of the advertiser, yet that the publication of a scale of charges, or the issue of advertisements containing claims of superiority over other practitioners, or unfair depreciation of them, will be regarded as an offence with which the Council will be prepared to deal, and which may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect." He said that it would be remembered that this Council laid down a declaration of policy on the question of "covering"

before proceeding to lay down penalties for that offence. There now appeared to be a number of dentists who seemed to wish the privileges that belonged to a profession and the freedom that belonged to a trade. It was time they were informed that the combination was an impracticable one. His proposal, however, bound the Council to nothing more than a promise to consider any charge of objectionable advertising that might be brought before it and a warning that such advertising might be so objectionable as to be followed by a penalty.

Sir DYCE DUCKWORTH seconded the motion, saying that the practice referred to was becoming only too common in the large towns. Some did not apparently realise the position they occupied by being on the Register and were putting insult and injury on brother members of the dental profession. He felt sure that the dental profession would not maintain its position unless practices of this kind were done away with. It would certainly come within the scope of the Council to visit very strongly offences of this kind.

Dr. MACALISTER said that the Council should be careful, before issuing such a notice to any dentist, that they were acting within the limits of their statute. He hoped the point had been submitted to their legal adviser.

Mr. CARTER said he had no objection to do as he had done with the last motion—refer it to the Executive Committee to take the legal adviser's opinion upon it.

The Council approved of this suggestion, and the motion was accordingly remitted to the Executive Committee.

This terminated the business of the session.

THE REPORT OF THE LANCET SPECIAL ANALYTICAL SANITARY COMMISSION ON GASEOUS FUEL.

A BATCH of correspondence which we have received gives substantial evidence of the very general interest shown in the report of THE LANCET Commission on the Use of Gaseous Fuel, published in our issue of Nov. 25th. Criticisms both from a practical and theoretical point of view have reached us, and we have to thank many of our correspondents for affording us some valuable suggestions and information on many of the points involved in the inquiry. The bulk of the correspondence, however, came, as might have been anticipated, from makers of various gas stoves throughout the United Kingdom, who urged the claims of certain kinds of stoves alluded to, but not dealt with, in the report. In response to this class of correspondents we must draw their attention to the very definite statements in the article which have possibly escaped their observation, and which in substance conveyed that the attention of our commissioners was confined to those gas fires in the construction of which the atmospheric or Bunsen burner was an essential feature—that is, to stoves in which clay-balls, iron, or other material is maintained at a cheerful glow by the heat of the almost invisible Bunsen flame. These were selected in order to meet the sentimental, but nevertheless powerful, objection often urged that in introducing gaseous fuel a glowing red-hot fire would be necessarily done away with. It was shown in the report that this objection could hardly obtain with gas fuel however, because a gas fire (atmospheric burners and clay "fuel," for example), could be made to approach the glowing coal fire so closely in apearance as to deceive even the keen observer. It was impossible to include in the investigation every known form of stove in the market; we therefore consulted the Gas Light and Coke Company on the point, with the result that a selection of stoves was made from those actually supplied by the company to the inhabitants residing within the company's area. In brief, the stoves described in the table were taken as fairly representative of the system of gas firing chiefly in daily use, and which complied with certain requirements detailed in the report. In reply, therefore, to many stove makers, it may be added that we must consider the investigation closed, at any rate for the present. We may possibly be led to extend the scope of the inquiry at some future time, but in view of the present pressure of work on our analytical department we cannot undertake to make any definite or immediate promise in this direction. In response to other inquiries we have to state that we do not consider it desirable to publish the names of the makers of the gas stoves tested. The description of the stove, together with the requirements which we laid down as essential in the structure of stoves, is, we consider, a sufficient guide to those who may desire to adopt gas as fuel.

We may next deal briefly with one or two of the letters from private individuals which have struck us as offering some useful suggestions and criticism. We cannot obviously deal with all, nor does space permit the publication of any of them *in extenso*, as in the majority of cases the communications are necessarily lengthy, and often the matter discussed is more or less of a technical kind. Some good criticisms are contained in a letter from Mr. Ernest H. Jacob, who points out some important questions which he considers were left untouched in the investigation. Thus he thinks that the question of heating has been considered apart from that of ventilation. This is not quite so, since the effect of the stove on the air of the room was carefully measured by estimating the carbonic acid in the air before and after the experiments. In some cases, be it remarked, the increase of carbonic acid was considerably less than in the case of a coal fire. It must not be supposed that because there is a slight increase of carbonic acid in the air—an increase measured in *parts per 10,000*, and in some cases a negligible quantity—that there is no ventilation, for even where ventilation may be demonstrated the carbonic acid is found to increase in very small quantity (less than *1 part per 10,000*), due not to any defect, but to the well-known phenomenon of diffusion. As long as the products in the chimney are satisfactory, and the chimney is of sufficient capacity to carry away the products, there must necessarily be ventilation. Besides the air which must stream in in order to effect the combustion of the gas there is the strong current induced up the chimney by the heat developed. The air required for combustion alone in a stove consuming fifty feet per hour is nearly 300 cubic feet, and this must travel through the room in order to gain access to the fire. As a matter of fact no precautions were taken to ventilate the room used for the experiments, otherwise the carbonic acid probably would not have been found to increase even to the trifling extent (1 to 2 parts per 10,000) indicated. Our correspondent suggests a perforated iron ball as the best form of "fuel." Our experience, and the experience of most authorities, on the subject of the *healthy* warming of dwelling places decides emphatically against the use of metal for this purpose. In regard to another point which we may notice, we must repeat that, so far as was possible, the inquiry was made of a practical rather than a theoretical character. Exact measurements as to the proportion of radiating to enclosed surfaces were not entered into simply because such matters are seldom considered in actual practice. When an ordinary grate is about to be replaced by a gas stove, the size of the stove suitable is judged from the area of the grate. So in the comparative experiment in which coal was contrasted with gas, a stove of the size generally supplied to replace the particular size of coal-fire that had hitherto been used was substituted. This seemed to us the only practical way of making the comparison. It may be added, however, that in the experiments referred to the height and length of the bars of the grate and of the stove were the same. In this connexion we may refer our correspondent to the tests in regard to size of chimney, velocity of current &c., made at the Glasgow exhibition, October, 1880, of the practical value of which he will be able to judge. In conclusion, we entirely accord with our correspondent's observations as to the necessity of providing a means of exit for the products of combustion of gas stoves used in the kitchen. His experience, however, must be somewhat limited, as in the kitchens which our commissioners inspected there were ample provisions made for obviating the contamination arising from this source.

Another correspondent (F. J. S.) is right in pointing out an apparent error in one calculation, which, however, does not materially affect the argument. It is stated on page 1332, in the first column, that 1 volume of coal gas of the composition indicated requires 8½ volumes of air. It should read 5½ volumes—the figure 8 having been misprinted. Our correspondent expresses interest in the question of the relative humidity in the air heated by gas stoves. Although we gave no comparative figures bearing on this point, the subject was not ignored.

A writer in the current number of the *Journal of Gas Lighting*, the leading organ circulating amongst gas engineers and others, deals critically and at great length with certain

sections of the report. He comments first upon previous work on the subject, in which the perfect combustion of solid fuel is discussed, and it is perhaps natural to find him entertaining an evident prejudice against the introduction of appliances which give evidence of an honest endeavour to deal with the proper and complete burning of coal. But the great shortcoming in the recent report appears to him to be the "slipshod" use of the term "fuel" Thus he says: "This misuse of the term fuel to mean something which is no more combustible than the casing of a close fire stove or the hot-plate of a kitchener, is a deplorable blunder and tends to give circulation to the vulgar error that the fire-clay, asbestos, or iron of gas fires has an active share in the development of heat." This statement is really so frivolous that it barely needs comment on our part; the term was one obviously used for convenience, and, moreover, one over which, according to the mass of correspondence we have received on the subject, this writer only has stumbled. He further suggests elsewhere that had our commissioners been engineers the blunder could never have been committed. We fear the bulk of the readers of the journal referred to, who are mostly engineers, will find no flattery in the suggestion. Still we may add, what most will have already understood, that the "fuel" (we may put the word in commas to avoid misinterpretation) plays a very important part in atmospheric stoves in rendering the heat of the combustion of the gas radiant, which is admittedly the healthiest form of heat for warming dwellings. Take away the "fuel" and the heat of the Bunsen flames is wasted up the chimney. We omitted all consideration of luminous flames for reasons fully stated in the report. The writer himself admits that the public will not be satisfied unless the new system promises not to dispense with the bright and cheery appearance of a coal fire. This comprises practically the gist and extent of his criticism, although he has devoted over two columns to the purpose. Here and there the article is interspersed with highly laudatory remarks, while in the concluding paragraph he adds that: "On the whole THE LANCET commissioner has done his work well and has rendered great service to the community and to the gas industry." With the exception of one or two points in regard to the consumption of gas the more solid sections of the report are merely reviewed and not discussed.

Finally, the present opportunity may be taken to set aright a vagueness of expression which has arisen from the omission of three words on page 1333. After the word "air" in the first line of the first column, the words "to consume them" should be inserted, "them" having reference to "hydrocarbons," while the following word "with" should read "without." With these corrections the sentence reads thus: "The nitrogen of the air acts in the normal Bunsen flame by so diluting and protecting the hydrocarbons that a far higher temperature is needed for their decomposition, and this action gives time for the oxygen of the air to consume them without formation of acetylene or the liberation of carbon, and hence without luminosity."

THE TREATMENT OF HABITUAL INEBRIATES.

ON Tuesday afternoon last a deputation representing the British Medical Association, the Society for the Study of Inebriety, the British Women's Temperance Association, and kindred bodies waited upon the Home Secretary to urge upon him the necessity of dealing with the question of the compulsory detention and legal treatment of inebriates. Dr. Farquharson, M.P., having introduced the deputation, Dr. Norman Kerr said that the methods of dealing with inebriates, criminal or otherwise, were a disastrous failure. An enormous proportion of crimes were shown to be complicated with drunkenness, while the predominance of female inebriates endangered the hereditary and educational chances of their offspring. The amendments in the law most urgently required were, firstly, with regard to non-criminal inebriates, power to seclude and detain them for curative purposes, with proper provision for pauper cases and for cases voluntarily desiring treatment; and, secondly, with regard to criminal inebriates, power to magistrates to commit them to special hospitals. Sir W. T. Charley, Canons Barker, Duckworth, and Leigh, Lady Henry Somerset, Professor Gairdner, and Surgeon-Major Poole having spoken in support of the necessity for remedial legislation in several directions, Mr. Asquith replied that it was his hope to introduce a Bill into Parliament during the next session which would give effect to the recommendations of the departmental committee which sat during his predecessor's tenure of office. While recognising the obvious connexion between drunkenness and crime, the Home Secretary considered that habitual inebriety was rather the effect than the cause of bad social conditions, though it might be looked upon as an effect that tended to aggravate the causes which gave rise to them. At the present time, he admitted, the only method of dealing with the habitual drunkard was to punish him, and the constant reappearance before the police magistrates of the same individuals for the offence of intoxication, or for offences committed while in a state of intoxication sufficiently showed that mere punishment was no effective deterrent. On the other hand, he looked with the extremest jealousy upon the introduction of any system of compulsion by which the deprivation of a subject of his liberty might become possible; and he warned the deputation that a very strong, and even an overwhelming, case would have to be made out before the House of Commons would be brought to assent to measures involving any such principle; but he confessed that in the case of habitual inebriety such an overwhelming case had in his opinion been established, for between certain forms of that disease and actual insanity he could see no essential difference, each producing equal irresponsibility attended with equal danger to the community. However, with regard to Dr. Norman Kerr's reference to the offer of facilities to the individual desiring voluntarily to place himself under treatment the Home Secretary deprecated very strongly any measure which would allow a clergyman, or even a medical man, unaided by further legal process, to decide upon the propriety of incarcerating a fellow-subject. In his judgment no man should be sent into confinement, voluntarily or involuntarily, except upon an application heard by a judicial authority. In conclusion, he asked, Who was going to pay for the realisation of legislative improvement? If retreats for the inebriate, and separate reformatory institutions for them, were to be established broadcast, this would clearly mean embarkation upon a process of considerable expense. Was voluntary contribution to be looked to in order to meet this expense, or was it to be made primarily a charge upon the public funds, even if supplemented by private charity? And if the expense was to be made chargeable upon the public funds was the charge to be an Imperial or a local one? Mr. Asquith could not conceal from himself that the practical side of the question presented great difficulties; but in any legislative proposals that the Government might feel it their duty to submit to Parliament upon a question of such far-reaching importance they would follow in the main the recommendations of the departmental committee which reported early in this year, for those recommendations embodied the most feasible plans yet made public.

The deputation then withdrew, having briefly thanked the Home Secretary for his satisfactory assurances.

CHOLERA.

So far as any intelligence of fresh manifestations of cholera from abroad is concerned, we may now speak of the epidemic in the past tense—as the late epidemic. With the exception of Teneriffe, where the disease is decreasing, there is no news of cholera. It is, of course, quite possible that sporadic cases occasionally occur; but, if so, their number is too insignificant to attract attention or to be officially recognised. Whether the disease will reappear, however, in the course of next year remains to be seen. Reports of the presence of influenza in different parts of the Continent at present form the staple of all intelligence regarding the prevalence of epidemic disease.

The International Sanitary Board at Constantinople having removed quarantine restrictions from the Orient express from Paris to Constantinople and *vice versâ*, it only remains for the Bulgarian Government to follow this example to completely re-establish direct railway communication between those two capitals.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5977 births and 5248 deaths were registered during the week ending Dec. 2nd. The annual rate of mortality in these towns, which had increased in the preceding five weeks from 18·3 to 26·2 per 1000, further rose last week to 26·5. In London the rate was 27·1 per 1000, while it averaged 26·1 in the thirty-two provincial towns. The lowest rates in these towns were 13·4 in Croydon, 15·9 in Halifax, 16·8 in Brighton, 17·5 in Portsmouth, and 19·5 in Norwich; the highest rates were 29·7 in Hull, 30·9 in Wolverhampton, 33·0 in Liverpool, 33·3 in Manchester, and 34·7 in Birkenhead. The 5248 deaths included 503 which resulted from the principal zymotic diseases, against 513 and 496 in the preceding two weeks; of these, 129 resulted from whooping-cough, 108 from diphtheria, 73 from "fever" (principally enteric), 70 from scarlet fever, 61 from measles, 45 from diarrhœa, and 12 from small-pox. These diseases caused the lowest death-rates in Blackburn, Cardiff, Derby, and Brighton, and the highest rates in Swansea, Plymouth, Norwich, Birkenhead, and West Ham. The greatest mortality from measles occurred in Norwich; from scarlet fever in Swansea and Leicester; from whooping-cough in West Ham, Plymouth, Bolton, and Leeds; and from "fever" in Newcastle-on-Tyne, Sunderland, Preston, and Norwich. The 108 deaths from diphtheria included 74 in London, 6 in Liverpool, and 4 in Manchester. Five fatal cases of small-pox were registered in Birmingham, 3 in Bradford, 2 in Leicester, and 2 in Oldham, but not one in London or in any other of the thirty-three large towns. There were 141 small-pox patients under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 150, 151, and 140 at the end of the preceding three weeks; 33 new cases were admitted during the week, against 20 and 21 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3183, against 3071, 3129, and 3140 on the preceding three Saturdays; 373 new cases were admitted during the week, against 363 and 322 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 271 to 669 in the preceding five weeks, further rose to 737 last week, and were 310 above the corrected average. The causes of 79, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Blackburn, Leeds, Newcastle-on-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Preston, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 18·2 to 25·4 per 1000 in the preceding five weeks, further rose to 27·8 during the week ending Dec. 2nd, and exceeded by 1·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·9 in Aberdeen and 23·2 in Greenock, to 36·0 in Perth and 42·1 in Paisley. The 784 deaths in these towns included 32 which were referred to whooping-cough, 15 to diphtheria, 12 to "fever," 9 to scarlet fever, 3 to measles, 3 to diarrhœa, and not one to small-pox. In all, 74 deaths resulted from these principal zymotic diseases, against 68 and 56 in the preceding two weeks. These 74 deaths were equal to an annual rate of 2·7 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 27 and 25 in the preceding two weeks, rose again to 32 last week, of which 19 occurred in Glasgow, 6 in Dundee, and 4 in Edinburgh. The deaths from diphtheria, which had been 11 and 7 in the preceding two weeks, increased to 15 last week, and included 6 in Glasgow, 4 in Dundee, and 3 in Edinburgh. The 12 deaths referred to different forms of "fever" considerably exceeded those recorded in any recent week, and included 6 in Glasgow and 3 in Edinburgh. The fatal cases of scarlet fever, which had been 12 and 10 in the preceding two weeks, further declined to 9 last week, of which 7 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 212 and 244 in the preceding two weeks, further rose to 270 last week, and exceeded by 136 the number recorded in the corresponding week of last year. The causes of 76, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 26·7 to 28·6 per 1000, declined again to 27·1 during the week ending Dec. 2nd. During the past nine weeks of the current quarter the death-rate in the city averaged 25·5 per 1000, against 21·4 in both London and Edinburgh. The 182 deaths registered in Dublin during the week under notice showed a decline of 10 from the number in the preceding week, and included 17 which were referred to the principal zymotic diseases, against 16 and 18 in the preceding two weeks; of these 17 deaths, 7 resulted from "fever," 5 from whooping-cough, 4 from measles, 1 from diarrhœa, and not one from small-pox, measles, or scarlet fever. The zymotic death-rate was equal to 2·5 per 1000, the rate during the same period being 2·8 in London and 2·0 in Edinburgh. The deaths referred to different forms of "fever," which had been 3 and 6 in the preceding two weeks, further rose to 7 last week. The fatal cases of whooping-cough, which had declined from 8 to 5 in the preceding three weeks, were again 5 last week. The 4 deaths from measles also corresponded with the number recorded in the preceding week. The 182 deaths registered in Dublin last week included 38 of infants under one year of age and 53 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a further increase upon the numbers recorded in recent weeks. Five inquest cases and 4 deaths from violence were registered; and 74, or more than a third, of the deaths occurred in public institutions. The causes of 13, or more than 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS IN THE MEDICAL STAFF.

THE following officers have embarked for India in the transport *Bothnia*: Brigade-Surgeon-Lieutenant-Colonel Eaton, Surgeon-Major Lane, Surgeon-Captains Philson and Farmer-Bringhurst, and Surgeon-Lieutenant Anderson. The following officers have arrived from India on completion of a tour of service: Surgeon-Major Asbury and Surgeon-Captains Fayrer, Allport, and Marks. Surgeon-Major Gormley has embarked for a tour of service in South Africa, and Surgeon-Captain Burke for the West Coast of Africa. Surgeon-Captain Davis has resumed his duties in Jersey on return from trooping duty. Surgeon-Captain Clement has arrived from India on sick leave, and Surgeon-Captain Clapham has been granted leave from Barbadoes.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Francis Howard, M.D., retires on retired pay. Surgeon-Captain John P. Carmody, M.D., from half-pay, is placed on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICE.

Surgeon-Captain H. R. C. Barber, Officiating Civil Surgeon, Jullandur, is posted to Gujrat. The services of Surgeon-Major W. Coates, Civil Surgeon of Lahore, are placed temporarily at the disposal of the Government of India in the Home Department. Surgeon-Captain J. F. Evans, M.B., I.M.S. (Bengal), Officiating Chemical Examiner to the Government of the Punjab, and Professor of Chemistry in the Lahore Medical College, is appointed to officiate as Chemical Examiner and Professor of Chemistry in the Medical College, Calcutta. Surgeon-Captain J. Chaytor-White, M.B., I.M.S. (Bengal), is appointed to officiate as Medical Officer of the Deoli Irregular Force and of the Haraoti and Tonk Pol Agency from date of assuming charge. Surgeon-Captain G. H. Baker, Civil Surgeon, on return from deputation, is appointed to the Civil Medical Charge of the Banda District. Surgeon-Captain J. Morwood, Civil Surgeon, on return from deputation, is appointed to the Civil Medical Charge of the Sultanpur District. Surgeon-Lieutenant-Colonel Franklin has been selected by Lord Elgin for the medical billet on his personal staff. Surgeon-Captain M. A. T. Collie, M.B., Resident

Surgeon, St. George's Hospital, Bombay, has returned to India on the expiration of eighteen months' sick furlough to England. Brigade-Surgeon-Lieutenant-Colonel Lethbridge, of the Thugi and Dacoity Department, has arrived at Agra, where he will confer with the various Political Agents in Central India and the Rajputana States regarding the effective carrying out of a new scheme for the suppression of dacoity in those States. Surgeon-Captain W. H. M. Ingham, I.M.S., latterly serving in the Madras Presidency, is transferred to the temporary half-pay list. Surgeon-Captain E. H. Brown and Surgeon-Captain J. R. Adie have been granted an extension of furlough for six months.

NAVAL MEDICAL SERVICE.

The following appointments are announced: Surgeon: Godfrey W. Simpson, at Llantwit Major (dated Dec. 5th); C. I. Fyfe, to the *St. Vincent* (additional); H. B. Marriott, to the *Victory* (additional); T. E Honey, M.D., to the *Banterer;* H. J. Hadden, B.A., M.B., to the *Pembroke;* and W. E. Marshall, to the *Gleaner.*

VOLUNTEER CORPS.

Royal Engineers: 1st Sussex: Second Lieutenant Alexander Henry Croucher, M.D., is appointed Surgeon-Lieutenant.—*Rifle:* 4th (Cambridge University) Volunteer Battalion, the Suffolk Regiment: Hugh Kerr Anderson, M.B., to be Surgeon-Lieutenant. — 2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Surgeon-Captain T. L. Laxton resigns his commission; Surgeon-Lieutenant C. J. Marsh to be Surgeon-Captain.—2nd Volunteer Battalion, the Highland Light Infantry: Surgeon-Captain J. Wylie, M.B., resigns his commission.—3rd (the Buchan) Volunteer Battalion, the Gordon Highlanders: Surgeon-Lieutenant D. Carmichael, M.B., resigns his commission.

THE MEDICAL STAFF CORPS.

It will be seen by a reference to our Parliamentary Intelligence column that the War Minister states that a scheme is under consideration by which instruction in ambulance work will be given both in Great Britain and Ireland to as many medical officers, from all districts, as can be spared for the purpose.

ASHANTI.

The latest intelligence from the Gold Coast indicates that there are at the present time sources of future military trouble in Ashanti. There is a British force on the frontier of the Atasibu protectorate to meet an expected incursion by the King of Ashanti, and some talk of an extension of our protectorate over the frontier tribes. There is no doubt that the Home Government will do all they can to avoid sending another Ashanti expedition from this country with its attendant loss of life and money; the troubles will have to be settled by the local forces, but the incursions of the Ashantis and the subsequent sacrifice at Coomassie of the prisoners captured from the frontier tribes will, we presume, have to be put a stop to somehow in the interest of European and native alike.

THE SPANISH MEDICAL ARRANGEMENTS IN MOROCCO.

What with the war between Spain and Morocco and the very difficult and expensive nature of the expedition in which Spain is at present involved, together with our own affair with Matabele, some valuable experience should be obtained in regard to the field medical organisation and arrangements necessary for special services. The force sent by Spain against the Arabs is a large one, and the arrangements made for its embarkation and disembarkation, for its encampment, clothing, equipment, feeding and hygiene, as well as the amount and nature of the ambulance service accompanying the Spanish troops, seem to be well worthy of inquiry and report. The Spanish Government would probably allow a medical officer from Gibraltar to visit the force for the purpose if asked officially to do so.

A PASTEUR INSTITUTE FOR INDIA.

SURGEON-GENERAL RICE, the Sanitary Commissioner with the Government of India, recently remarked in one of his reports that what was wanted in India was, not more private work by medical officers, however enthusiastic, but work by trained experts in properly equipped laboratories to supplement the clinical work of medical officers. We have frequently called attention to this subject. Systematic and specialised investigations, with the advantages of modern appliances and methods, undertaken by men trained in chemical and bacteriological science, are much needed in India in addition to the clinical observers, sanitarians, and engineers at present there. We are glad, therefore, to learn from the *Indian Medical Gazette* that the movement in favour of the establishment of a Pasteur Institute for India is likely to be soon realised. We should like to see in the way of special machinery some central organisation or bureau of health for the scientific investigation of disease, with local sanitary boards for different circles acting in concert with it. All questions which required special methods of research for their elucidation should be referred to the central bureau. The local committee, board, or sanitary authority should include among its members an officer of the Public Works Department with a special knowledge of sanitary engineering and some medical officer qualified in public health work, and they should be empowered to remedy existing or emergent defects, and to spend money within certain specified limits.

THE EMPEROR OF GERMANY AND THE ARMY MEDICAL STAFF AT BERMUDA.

The *Broad Arrow* reports that the Emperor of Germany has been pleased, by an Imperial order of July 12th last, to grant some gifts of honour and money presents to Brigade-Surgeon-Lieutenant-Colonel H. Comerford, Surgeon-Captains S. H. Creagh and G. F. Gubbin, Staff-Sergeant E. Massie, and Privates W. Singleton, T. Grantham, and E. Payton, Medical Staff Corps, in recognition of the medical attention and kindness which the crew of the German ship *Hyon* received at Bermuda. It appears that in February last this vessel, having left New York for Java, encountered a severe gale and drifted towards the Bermuda Islands and was towed into the port of St. George's. Owing to the extreme cold the crew were rendered helpless and were unable to manage the ship, several of their number suffering from frostbite. Eleven of the crew were admitted into the Military Hospital, where they received, of course, all necessary surgical treatment and attention. In some instances amputations had to be performed.

WOOLWICH AND SANDHURST.

We were not at all sorry to notice that in reply to a question in the House of Commons Mr. Campbell-Bannerman said the reports of the Board of Visitors on the Royal Military College, Sandhurst, and the Royal Military Academy, Woolwich, were being carefully considered with a view to giving effect to the recommendations of the board as far as practicable. Our service contemporary—the *Army and Navy Gazette*—of last week also called attention to the same subject, more especially to the adverse comments that had been made on the administration and internal economy of the Sandhurst establishment. It passes the comprehension of the outside observer why there should not be one and the same system adopted for the messing and management of the two colleges, that at Woolwich being reported to be quite satisfactory.

THE LATE SURGEON-GENERAL VERE WEBB.

Owing to the pressure on our columns the notice of the death of this officer was omitted last week. We regret to state that Surgeon-General Vere Webb, who retired from the service in 1877, died at Mentone, where he had latterly passed several winters, on Nov. 15th. This officer entered the army in 1843, and served with the 10th (Lincolnshire) Regiment throughout the Punjab Campaign of 1848–49, including the whole of the siege operations before and surrender of Mooltan and battle of Goojerat (medal and two clasps); also with the 46th (South Devonshire) Regiment at the siege of Sebastopol in 1854–55 (medal and clasp and Turkish medal).

OUTBREAK OF CHOLERA AMONG THE CHINS.

It is reported from Calcutta that cholera had broken out among the Chin chiefs and their followers, who had recently come to Rangoon to meet the Viceroy of India at his late visit there. Two chiefs and several of their followers are stated to have died from the disease.

MORTALITY IN INDIAN GAOLS.

The *Times of India* of the 18th ult. calls attention to the fact that no noteworthy progress seems to have been made in the sanitary improvement of the gaols of India. The reports of these institutions during the past year, indeed, show the contrary to be the case. The ratios of admissions into hospital and of the daily average number of sick have increased, while the death-rate has risen from 30·19 to 35·94 per 1000. A total mortality of 116 per 1000 was reached in one gaol in Sind, and at several other gaols it ranged from 50 to over 80 per 1000. Cholera, fever, and the high price of food-grains—for during times of famine or scarcity the gaols take the place of our Poor-houses for the unfortunate natives of India—account, no doubt, for a good deal of the sickness and mortality. Still, much of that which exists should be of a preventable kind.

Correspondence.

"Audi alteram partem."

"THE MEDICAL DEFENCE UNION AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 2nd you publish a document in which the council of the Medical Defence Union profess to give a *résumé* of certain negotiations, which have recently been carried on in the hope that they might lead to the amalgamation of the London and Counties Medical Protection Society with the Medical Defence Union. These negotiations were conducted by two committees appointed for the purpose—one from each society. That a *résumé* of such negotiations should be published in the medical papers in due time was a course to which no one could take exception, and was, indeed, assented to by both parties to the conference. But this *résumé* is misleading, because it is an illustration of what is an undoubted suppression of facts; and a knowledge of these suppressed facts is essential to anyone who would fairly judge between the two societies, and decide which of the two should bear the blame of the breakdown of the negotiations for amalgamation. In the fourth paragraph from the end of the *résumé* in question this statement is made: "In view, however, of the fact that the London and Counties Medical Protection Society contemplated winding up" &c. Now it was well known to every member of the two special committees that the Medical Protection Society had never been asked to wind up. It is undoubtedly true that, in our wish to foster in every possible way whatever might lead to the formation of one large and powerful society for the protection of medical men and their interests, we, the subcommittee of the Medical Protection Society, had undertaken to suggest to our council that they should consent to the winding up of our affairs *after* the amalgamation had been practically completed; but until this *résumé* was published our council had never even heard of this suggestion of ours. This is an accurate statement of our position—a very different one from that which is contained in the *résumé*, which was drawn up by men who, having a perfect knowledge of the facts of the case, could yet bring themselves to state that the London and Counties Medical Protection Society "contemplated winding up." In addition, those who drew up and sanctioned the publication of the *résumé* in question have suppressed a fact which is of the first importance to the understanding of the points at issue. For, although the *résumé* correctly states that the Medical Defence Union demanded that a list of the nominees of the London and Counties Medical Protection Society should be furnished them, it omits to state that we, the subcommittee, while very strongly objecting to any such proposal, made the following counter-suggestion: "The committee of the Protection Society, whilst objecting to the principle of scrutiny of members of council, and in view of the proposition made by the council of the Medical Defence Union, requires that the Medical Defence Union shall submit their list of councillors for the proposed joint society to the same measure of criticism to which the Medical Defence Union intends to submit the list of councillors to be proposed by the Medical Protection Society." But until Tuesday, Nov. 28th, on which day the *résumé* was in type for publication, we had received no copy of it, and had no opportunity of knowing whether the Medical Defence Union would grant the right of scrutiny to our society, which it was determined to exact for itself, and until this was known it was useless to lay its proposals before our general committee.

We expressly stated, on more than one occasion, to the amalgamati oncommittee of the Medical Defence Union, that we were merely the delegates of our society, that we had no power to finally decide anything, and that when we had learned how far the Medical Defence Union would meet us in amalgamation we would carry its proposals to our committee for ratification or refusal. That opportunity was never offered us; and the statement which appeared in THE LANCET of Dec. 2nd reached us, as we have said, so late that it barely afforded time to our secretary to pen a hasty reply without consultation with his other two colleagues, Dr. Heron and Mr. Bruce Clarke.

Our desire for union was based on the sincere belief that union in the medical profession, as elsewhere, means strength, and that one society is better than two when the objects of both are so nearly identical. The cause which led to the formation of a second society had, we had every reason to hope, ceased to exist. It is a matter of sincere regret to us that our efforts in the direction of amalgamation have been frustrated by the publication of this untimely *ex parte résumé*, and that no opportunity was afforded us or our general committee for its discussion. At the same time we cordially agree with Mr. Victor Horsley's words: "It is only due to the profession that an account" (of course he means a correct account) "of the negotiations should be published."

We are, Sirs, yours obediently,

W. BRUCE CLARKE,
G. A HERON,
HUGH WOODS,
} Amalgamation Subcommittee, London and Counties Medical Protection Society.

Harley street, W., Dec. 5th, 1893.

To the Editors of THE LANCET.

SIRS,—We observe in THE LANCET of Dec. 2nd, under the above heading, a letter from Dr. Hugh Woods purporting to be a criticism of some of the statements in the *résumé* of the amalgamation negotiations published by the council of the Medical Defence Union. Dr. Hugh Woods distinctly implies that certain of these statements are untrue. We ask therefore for space to confirm the accuracy of that which was originally written. The first allegation of Dr. Woods is that the conference was not terminated by the refusal of his Society to accept the revision of the names of their representatives by the council of the Medical Defence Union. Owing to Dr. Woods having attended only a small proportion of the meetings of the Amalgamation Committee, he is doubtless unaware of the fact that his colleague, Dr. Heron, informed the committee that the council of the London and Counties Medical Protection Society would definitely refuse to entertain for a moment such a proposal, and that if it were persisted in the negotiations were at an end. On the matter being referred to our council the original proposal was again confirmed, and again rejected by the delegates of the London and Counties Medical Protection Society.

What Dr. Woods refers to as a counter-proposal was really only an afterthought of Dr. Heron and had no meaning in that stage of the negotiations, since it had already been agreed to by the Joint Committee[1] to leave the executive of the Union as it stood, the addition of the nominees of the London and Counties Medical Protection Society being in the shape of an appointment of vice-presidents to the existing council of the Union. Dr. Woods' second allegation is so worded as to convey the impression to his readers that in the negotiations the winding-up of the London and Counties Medical Protection Society was not contemplated. This serious and doubtless unintentional misrepresentation of what passed at the Joint Committee is probably due to the fact that he was again not present at the meeting at which this course was agreed upon by his colleagues and at which also the solicitors representing the two Societies assisted. Dr. Woods' third allegation is that the statement of the council of the Medical Defence Union to the effect that the numerical strength of the London and Counties Medical Protection Society is between 600 and 700 is untrue; further, that it is in reality between 800 and 900. In answer to this allegation we have only to say that the estimate quoted by the council of the Medical Defence Union—namely, 600 or 700—was that furnished to the Joint Committee and agreed to by those representatives of the London and Counties Medical Protection Society who happened to be present at that meeting—namely, Dr. Heron and Mr. Bruce Clark. We note, in passing, that Dr. Woods imputes inaccuracy to the statement of the numerical strength of the Medical Defence Union. For answer we refer him to the register of members, which he ought in honour to have examined before putting forward so grave a charge. Dr. Woods' fourth allegation is to the effect that our Union is disposed to act simply as a defender of its individual members. Of course this statement is wholly untrue, as everyone who reads the report of the Union is well aware. Dr. Woods' fifth allegation is to the effect that the executive of the Medical Defence Union is an oligarchy, but that his Society is a free government.

[1] See Paragraph No. 1 in the résumé et seq.

To this we only desire to reply that the executive of the Medical Defence Union is annually elected, whereas that of the London and Counties Medical Protection Society is at present elected for three years without any power on the part of the members to depose their rulers; and further that the Medical Defence Union council meetings are held fortnightly on fixed dates and are attended by an average of twenty members, drawn from all parts of the country, such frequent meetings absolutely ensuring that all matters are dealt with by the council itself and not by one or two members of its executive. Dr. Woods' sixth allegation to the effect that the medical officials are paid is worded so vaguely that it is difficult to comprehend what he intends should be understood by it. No medical officer of the Medical Defence Union is paid any salary at all. At the general meeting in 1891, in consideration of the excessive clerical work which had been performed by the secretaries during the previous two years, amounting to some 12,000 letters, besides reports &c., it was decided that an honorarium of fifty guineas should be given to each secretary; and in 1892, when in that one year the letters alone exceeded 10,000, fifty guineas were paid to Dr. Bateman and one hundred guineas to Dr. Leslie Phillips by the Union. As these are the only payments which have been made at all, the amount contributed by each member is rather less than threepence per annum. The work of the Union is now so very onerous as to render it in the view of the council unjustifiable to demand gratuitous service involving heavy responsibility for objects which are of public and not private interest, the council of the Medical Defence Union being of opinion that the principle of remuneration which obtains in the General Medical Council should be applied to the office of secretaries to the Union.

We have the honour to remain, Sirs, yours faithfully,

LESLIE PHILLIPS, M.D.Brux.,
A. G. BATEMAN, M.D.,
Secretaries to the Medical Defence Union.

"PUERPERAL SEPTICÆMIA."

To the Editors of THE LANCET.

SIRS,—I am much interested in the subject of Puerperal Septicæmia now being discussed in the columns of THE LANCET, and wish, as a general practitioner of fifteen years' standing, to add my emphatic testimony to that side of the discussion which attributes the evil to poison conveyed to the patient by the medical attendant rather than through defective sanitary surroundings. My experience is peculiar. I commenced practice by succeeding a medical man who had been driven almost mad by a fearful epidemic of puerperal fever, and thus the importance of the subject was early brought to my notice. Though early converted to antiseptic surgery by Sir Joseph Lister it never occurred to me to carry antiseptics into obstetric practice till the last four or five years, and the result is as remarkable as it is pleasing. In the former (the non-antiseptic) period my success was variable; perhaps a third of the cases became more or less feverish, and the third or fourth day was an unfailing source of anxiety, notwithstanding the fact that I was as careful as I knew how to be; I changed my clothes frequently, never attended fever and confinement cases at the same time, and not infrequently would cease for some weeks from midwifery practice altogether. In spite of all this I feared and dreaded midwifery. Although I rarely lost a patient, confinements were followed by a tide of complications and acute ill-health. Bewildered and perplexed, my faith increased daily in the causal power of "defective drains," "proximity of cesspools," and other insanitary surroundings, although I could not stifle scruples in my mind as to their unfailing malignancy; for where was there a perfectly sanitary house?—certainly, I never looked for sanitary defects in any house where I was attending without finding them in abundance. Talking over the condition of the poor one day with a clerical friend, I was much struck by his earnest question, "How do you account for the fact that poor women are often confined under the most miserable conditions and in the most deplorable surroundings, without the help of any medical man or midwife, and yet these patients seem to get on all right and to do so much better than their richer sisters?" I could not account for it then, but I see it all now: they are not vaginally examined.

"The fault, dear Brutus, is not in our stars, but in ourselves." Five years ago this great truth dawned upon me. I am now as careful with regard to antiseptic treatment before making a vaginal examination as I would be before putting my hand into the abdominal cavity. Whoever will may prove it for himself. Let him take the next case of midwifery he attends which is "all over before he arrives" and where no vaginal examination at all has been made, and let him carefully watch that case and take the temperature, and I am sure he will find that it does not rise, provided the nurse is fairly clean and aseptic. A year ago I wrote a book on "Antiseptic Midwifery" for the benefit of patients and nurses, in which there are elaborate instructions regarding the sanitary surroundings of the lying-in woman—house, drains, clothing, nurse, &c. are fully discussed. I have never published that book, because increasing experience has impressed upon me the truth that good and nice and desirable as these things are, they tend to cloud the issue and to divert the mind from the real source of security; and just as Sir Joseph Lister has simplified his methods and abolished the spray, centring his attention more on the avoidance of inoculation from the operator than on the purification of the surrounding atmosphere, so I feel certain that obstetric medicine will follow antiseptic surgery in this direction also. Thoroughly, carefully, and most minutely purify the hands, keep the nails short: use nail brushes as scrubbers over every part of the hands and up the arm with strong carbolic soap: rinse the hand in corrosive sublimate or carbolic solution each time before touching the patient, dispensing with all doubtfully contaminated lubricants, and making as few examinations as possible (none at all if you can manage it—one perchloride douche if the patient has been examined): these and a careful "wash up" all round the vulva with mercury solution leave the patient safe. Let the nurse never touch the patient with un-antisepticised hands, and my experience for the last five years has been that you need not have another thought or care about your case. Anxious friends may visit the patient even on the third day; she may eat and drink what she likes; windows may be opened, contrary to Mrs. Gamp's alarm; cesspools may be emptied in the garden, and other reckless conduct be followed; but the thermometer will not rise! I feel so certain upon this point that I have several times told my medical friends that I would hazard a heavy wager upon the matter.

Many years ago an old practitioner told me seriously that puerperal fever occurred in the years that the lions pupped in the Zoological Gardens; later I was taught that it was epidemic and inevitable; later still, that it was not epidemic, but arose *de novo* from erysipelas, scarlet fever, and bad drains; and lastly, that it is due to dirty hands, dirty nails, and dirty instruments, and can be banished by strict antiseptic surgical purity. Once more I say, with strength of full conviction, "The fault, dear Brutus, is not in our stars, but in ourselves."

I am, Sirs, yours faithfully,

Twickenham, Dec. 3rd, 1893. J. R. LEESON, M.D. Edin.

To the Editors of THE LANCET.

SIRS,—The discussion and the correspondence following the short paper on the above subject by me read early in October last emphasises the remarks accompanying the cases then related—namely, the necessity of careful inquiry into all the surroundings of the lying-in woman. At the time we are using the terms "puerperal septicæmia," "sapræmia," "ichoræmia," "puerperal fever," and "sewer-gas fever" we know nothing certain as to their nature. Till we can tell what is the morbific principle in sewer gas, whether its condition is constant, or whether it does not at times convey other disease producing matter, how can we assert how far it can or cannot become the source of a specific disturbance in the puerperium. And how far has our bacterial knowledge extended so that we can say that the lying-in woman has been destroyed by the accumulation of bacteria within her, or has been poisoned by their excreta? Or are we yet in a position to say positively that the bacteria—considered by some to be the cause of the diseased state—are, though present, merely taking advantage of circumstances favourable to their growth, but innocent of harm? And when there are present more than one kind how can we, from our present knowledge, determine the special symptoms of each? And, again, nothing is known as to the morphology of these growths: whether, as I have before suggested to be highly probable, they enter new phases, and, if so, whether they produce variations of disturbances in these fresh forms. If we would only confess our non-knowledge on these and other

points we should, as I said in my remarks in the paper, all the sooner arrive at a solution of the difficult problem before us; and while we are studying the bacterial question we ought to also study the various external circumstances which may influence the lying-in woman for ill. How can we tell what are these various untoward agents till we search round, as I have often urged, each case and note every factor liable, from our knowledge of surgery, to act detrimentally, and then out of this information from a large number of cases deduce a result approximating to the truth? Till this is done each one is giving his solitary experience only, in place of the universal.

I am, Sirs, yours truly,

J. BRAXTON HICKS.

George-street, Hanover-square, W., Dec. 2nd, 1893.

To the Editors of THE LANCET.

SIRS,—Dr. Wallace has drawn attention to the fact—which I regret, after a lapse of six years, had escaped my memory—that I had already referred to the case mentioned in my recent letter to you in my paper "On Defective Sanitation as a Cause of Puerperal Disease." I must have had some good reason at the time for describing it in a way which would not identify it as having occurred in my own practice—possibly in order to avoid the chance of the husband, who was then alive, recognising it. There is no essential difference in the two records, except that in the one the patient's illness is described as commencing within twenty-four hours and in the other on the third day. Writing from memory after thirteen years, this inaccuracy is perhaps intelligible, although not excusable; but the inference I draw from the facts is not thereby altered. The courteous letter of my friends Drs. Herman and Cullingworth, as well as those of your other correspondents, do not appear to call for a reply. My object in writing to you was to insist that defective sanitation is an important cause of puerperal disease. That does not now appear to be contested. The question whether such disease should be classed, as I think, with puerperal septicæmia until it is proved to be something else, or whether, as some of your correspondents think, it should be assumed to be something else *ab initio*, seems to me to be of altogether secondary importance.

I am, Sirs, yours truly.

George-st., Hanover-sq., W., Dec. 3rd, 1893. W. S. PLAYFAIR.

*** We have received other letters on this subject which we have been compelled to temporarily hold over.—ED. L.

SALVATIONISTS' SHELTERS AND INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—The decision in the late appeal case, Colclough *v.* the Vestry of St. George-the-Martyr, Southwark, is of so much importance that I venture to draw the attention of the readers of THE LANCET to the following facts:—

(*a*) As to the magistrate's finding: 1. That there was exposure of a small-pox patient in the Blackfriars shelter. 2. That many persons were admitted to the shelter on the same and following nights. 3. That the disinfection alleged to have been carried out in the shelter was inefficient in the face of a dangerous infectious disease. 4. That the magistrate decided that there was a letting for hire of part of a house and that the medical certificates produced were not in accordance with the Act. He fined the defendants £10.

(*b*) As to the appeal: 1. The judges decided that there was not a "letting" of the house and dismissed the appeal on that point. 2. Mr. Justice Wills said it was clearly a case in which the Act ought to apply, but does not. I will remind the readers of THE LANCET that Mr. Fowler, the President of the Local Government Board, in answer to a question in the House of Commons, stated that the shelters were under the control of the medical officers of health and that if entry were refused they could gain admission on a magistrate's order. This seems like chaos. Mr. Justice Wills says that the Act does not apply. Mr. Fowler appears to have a contrary opinion. Meanwhile small-pox is rapidly extending, and these shelters, while unregulated, form a standing menace to the public safety. Legislation, in my opinion, is urgently required.

I am, Sirs, yours truly,

F. J. WALDO, M.A., M.D. Cantab.,

Medical Officer of Health, St. George-the-Martyr, Southwark, Inner Temple, and Middle Temple.

Plowden-buildings, Temple, E.C., Dec. 4th, 1893.

"THE SO-CALLED PARASITIC PROTOZOA OF MAMMARY CANCER."

To the Editors of THE LANCET.

SIRS,—Owing to a temporary absence from London I did not see Dr. Herbert Snow's reply to Dr. Cattle at the time it appeared. Although I have no wish to enter into a controversy on the main question, yet I feel bound to remove a misapprehension under which Dr. Snow labours. Dr. Snow states in his last letter that "the slide in question was some time since submitted to Dr. Armand Ruffer, who pronounced the most characteristic cell-forms therein to be particularly well-marked examples of the 'protozoa.'" Passing over the fact that Dr. Snow has thought it right to report in a public paper a private conversation without asking my leave to do so, I beg to state now that his statement conveys an entirely erroneous impression as to what actually occurred. The facts are as follows. Dr. Snow had at various intervals shown me as identical with the parasites of cancer various structures, none of which had the remotest resemblance with the protozoa which my collaborators and I have depicted. In one slide, however, I at once recognised as parasitic certain structures absolutely different from those which Dr. Snow had demonstrated to me on previous occasions. It would appear, however, that he has not yet been able to see these parasites in his own slide, for the structures depicted by him in THE LANCET of Nov. 11th do not bear the slightest resemblance to the parasites contained in the slide above referred to. Hence I cordially agree with Dr. Cattle's statement that "among Dr. Snow's figures there is not one which would be accepted as a typical parasitic body by anyone who has devoted special attention to these structures."

I am, Sirs, your obedient servant,

York-terrace, N.W., Dec. 4th, 1893. M. ARMAND RUFFER.

HANWELL ASYLUM.

To the Editors of THE LANCET.

SIRS,—In a recent letter published in the *Standard* a guardian of St. Saviour's Union stated that in his opinion this asylum was entirely unfit for the "curative treatment of the insane"; this conclusion being drawn from an hour's visit, in which he observed that one patient had a hole in his boot and that there was a "terrible smell in the wards," which last he did not discover as arising from recent paint. The representative of Bumbledom also complained that the medical superintendent did not wait on him, although notice had been given of the august visit—*hinc illæ lacrymæ*. The want of value and even the absurdity of such an opinion is so obvious that it is astonishing that the London County Council should deem a special report on it necessary. This report alluded to the discourtesy of the guardians at their visit and further shows that in the last ten years the percentage of recoveries at Hanwell compared favourably with that of the other London asylums, while the death-rate for the same period was lowest of all. If Hanwell, therefore, is unfit for the treatment of the insane the other asylums are as bad, or worse. The London County Council, it is to be hoped, will not be induced by such peevish reports to expend the ratepayers' money in futile attempts at alteration of the old structure; the best change that can be made is to reduce the number of patients and to increase the means of treatment. The idea that the treatment of the insane rests on their brick-and-mortar surroundings has been disastrous to the patients as well as to the ratepayers' pockets. The truth is, as both Bethlem and Hanwell Hospitals demonstrate, that treatment can be as successful in an old building as amidst the most palatial and architectural extravagance if the necessary means be provided.

I am, Sirs, your obedient servant,

Dec. 2nd, 1893. MEDICUS.

"SOME POINTS WITH REFERENCE TO THE DIAGNOSIS AND TREATMENT OF TYPHOID FEVER."

To the Editors of THE LANCET.

SIRS,—Dr. Hood has had full particulars as to all the cases treated for typhoid fever at the London Temperance Hospital. I ask him again to publish a proper table of his 103 hospital cases, so that we may have before us the particulars which will enable us to consider the individual patients the dates of epidemics, and the localities from which

the cases came. Dr. Hood's 116 cases are made up of three groups, viz.:—53 with 4 deaths, 50 with 7 deaths, and 13 without a death. It is obvious, therefore, that in his own cases there are undisclosed data which differentiated the groups and affected their mortality. From Dr. Hood's lecture it is evident that his list of "typhoid" fever cases includes many that some physicians would have registered under "febricula" or other minor terms. If, also, Dr. Hood's refined diagnosis should enable him to discover "lobar pneumonia" where, at the Temperance Hospital, we can only discover "broncho-pneumonia" or "influenza," that would explain the other matter.

I am, Sirs, yours truly,

Dover-street, Piccadilly, Dec. 2nd, 1893. JAMES EDMUNDS.

"THE DIFFICULTIES OF DIAGNOSING SMALL-POX."

To the Editors of THE LANCET.

SIRS,—I desire to make a few observations upon the evidence, as reported in THE LANCET of Dec. 2nd, given in the "small-pox cases" heard before Mr. Curtis Bennett last week, and also upon the annotation on the same subject. I will take, first, the case of the man James Keen, because you say that his case was the least likely to be any kind of chicken-pox, "on account of his age, the severity of the constitutional symptoms, and the confluence of the eruption." As to the age, I have seen a considerable number of cases of chicken-pox in persons quite as old; and in my experience, as is the case in other usually infantile ailments, the severity increases *pari passu* with the years. I only mentioned my Fulham patients because I do not like general assertions to be made without reasons which cannot be verified. Mr. Curtis Bennett always objected to the mention of these, calling them the "doubtful cases." I never had any doubt about them, and yet I imagine that if one of them had come under the notice of less competent judges than the medical officers of the Tooting Hospital it, like this, would have been pronounced a small-pox case. As to the "severity of the constitutional symptoms," my evidence was that while he was under my observation the man exhibited no constitutional symptoms of small-pox whatever that I ever saw or have ever heard or read of. This evidence was confirmed by that of the wife, so far as a non-medical witness could do so, and, further, was contradicted by no one. No doubt she said that he became rapidly worse on the Saturday after I saw him for the last time, but this was also immediately after the visit of the sanitary inspector. My opinion was, and still is, that the man died from shock. He was weakened by hardships, had chronic bronchitis, with a dilated heart, and was further depressed by a presentiment of death. No medical man, I think, will deny that the sudden visit of the vestry's official and the message conveyed to him without any preparation that he was suffering from small-pox, and would therefore have to be removed, would act as a shock to such a man, whatever his disease. As to the confluency of the rash, one medical man saw the case for a few moments in a very dimly lighted room. I saw it five times in a good light. He says the rash was confluent. I say it was not. There we must leave it. I must, however, place on record the fact that I suggested to Dr. Orme Dudfield, before the body was buried, that there should be an examination of it by some competent persons. Such examination would have settled the question of confluency; perhaps more. The suggestion, however, was not acted upon. I have thus stated as fairly as I can my position in reference to the case of James Keen. I leave it to the judgment of medical men. I had hoped to review the case of Maud Keen also in this letter, but find that I have already made immoderate demands upon your space, large as it is. As the matter is of extreme importance to me, perhaps you will kindly allow me to recur to it next week.

I am, Sirs, yours truly,

Dec. 4th, 1893. J. D. HIRST SMYTH.

THE GENERAL MEDICAL COUNCIL AND THE DUBLIN PHYSICIANS.

To the Editors of THE LANCET.

SIRS,—At the recent meeting of the General Medical Council the claim of the Dublin College of Physicians to have their diploma placed on an equality as a surgical qualification with that of the London College was discussed. Sir W. Turner asked whether the College had "ever conducted examinations in surgery." Dr. Atthill replied, "Not to my knowledge." I should like to state that when I passed in 1885 *they required a full curriculum in surgery*, and that many of the questions I was required to answer were distinctly surgical.

I remain, Sirs, your obedient servant,

Dec. 6th, 1893. A LICENTIATE.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Epidemics.

THERE are now 204 cases of small-pox under treatment in the City Hospital and 315 cases of scarlet fever. This is a large proportion even for this time of the year, and the resources of the Health Committee are taxed to the uttermost. Thanks to the energetic action of the chairman, Alderman Cook, the arrangements made are calculated to give entire confidence in the wisdom and activity of the committee.

Mason College.

A series of health lectures are being given under the auspices of the authorities of this College. On Nov. 28th Mr. Barling delivered an address on Fevers and Infectious Diseases, their Causes and Prevention. The subject was made as clear as the difficult nature of its details permitted, and was much appreciated by a large audience. The complications of bacteria, bacilli, micro-organisms, germs, and kindred affinities somewhat perplex the popular mind, and it is necessary that their doings should be discussed in the simplest possible language if the popular mind is to receive an adequate understanding of their propensities and evolutions. In this instance there could be no doubt of the language employed being suitable for those who were anxious to profit by the explanation offered.

The Selborne Society.

On the same evening as the preceding lecture was given Professor Windle, Dean of the Medical Faculty, delivered a lecture at the Midland Institute on the objects of the Selborne Society. The Deputy Mayor, who presided, stated that these objects were: "To preserve from unnecessary destruction such wild birds, animals, and plants as are harmless, beautiful, or rare; to discourage the wearing and use for ornament of birds and their plumage except when the birds are killed for food or reared for their plumage; to protect places and objects of interest or natural beauty from ill-treatment or destruction; to promote the study of natural history." The lecture was ably delivered and dealt with the lives of Gilbert White and Charles Waterton. All lovers of natural history will recognise the value of such teaching in view of the Vandalism existing in the present day. To young people the subject has an especial interest and forms an endlesss theme for study and improvement by exercising their powers of observation and memory.

Dec. 4th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Victoria Jubilee Infirmary, Tynemouth.

THE annual meeting of the Victoria Jubilee Infirmary, Tynemouth, has been held, and the report presented shows the institution to be in a healthy financial position, there having been an increase in the total income, and the financial year closed with an increased balance in the hands of the treasurer. In-patients to the number of 169 and out-patients to the number of 56 had been treated; the average stay of the in-patients was twenty-seven days.

Influenza in the North.

Influenza is now very widely spread over the northern towns, and I hear of it being even at country villages and isolated farms. The disease is especially prevalent in Newcastle, Gateshead, and Sunderland, where no less than twenty-eight members of the police force are *hors de combat* owing to the malady. In Sunderland last week it was noted that for the first time in about twenty years the deaths exceeded the births. As a rule the proportion of fatal cases of influenza is very small when compared with the

attacks; but in some places there have been sad exceptions to this—for instance, at Crook, in the county of Durham, an old couple, husband and wife, died within a few hours of each other. In Newcastle the fatal cases have mostly occurred as the result of pneumonia.

The Lamp Catastrophe at Hartlepool.

An inquest has been held in the case of a lamp accident at Hartlepool whereby two young children were suffocated. It came out at the inquiry that the lamp had been upset by a cat whilst springing at a caged bird.

Death of a Centenarian at Alnwick.

Mrs. Grey, well known as a centenarian in the ducal town of Alnwick, died last week there in her 102nd year. It is said that with the exception of being a little deaf she retained all her faculties comparatively unimpaired to the last. Her husband, who was owner of the Old Theatre at Alnwick, died thirty-five years ago, at the age of seventy-six.

Diphtheria and Scarlet Fever.

The schools at Annan have been closed after a severe epidemic of diphtheria, and they were reopened after a closure of six weeks; but as the attendance was only 40 out of 250 on the roll they have been closed again for a while. There has been a severe epidemic of scarlet fever in Whitehaven and its neighbourhood; some of the schools have been closed until after the Christmas holidays.

The Eyesight of Railway Men.

A mass meeting of railway men of all grades has been held at Gateshead town-hall with reference to the eyesight tests as now applied to the service, and which had been recommended by the Royal Society and the Board of Trade. The men, however, think that these tests are unfair and ask for a practical test at reading working signals. During the discussion great dissatisfaction was expressed at the present mode of testing, as a man who had read signals correctly for years might be declared to be incompetent from becoming confused over the tints of some pieces of coloured worsted.

Ambulance Work at Hartlepool.

Dr. Gourley, who has conducted ambulance classes at West Hartlepool for thirteen years, must have been gratified at the meeting held last Thursday at the Armoury, when he was awarded a well-deserved and cordial vote of thanks for his labours and for the instruction given gratuitously to about 500 ambulance men, the good example thus set having been the means of starting numerous other classes in the town and its neighbourhood.

Newcastle-on-Tyne, Dec. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Presidency of the Royal College of Physicians of Edinburgh.

AT the annual meeting of the Royal College of Physicians Professor W. T. Gairdner of Glasgow was elected President for the ensuing year, in succession to Professor Simpson, who has occupied the presidential chair for the past two years with marked success.

Edinburgh Medical Missionary Society.

The annual meeting of this Society was held last week, Professor Simpson, President of the Society, presiding. The annual report shows that the Society continues to do good work. Various changes have been made during the year. After the new superintendent, Dr. Fry, was appointed to succeed the late Mr. Lowe it was determined to do without an assistant superintendent. This led them to dispense with the services of Dr. Hoernlé, their appreciation of whose valuable services they have placed on record. Professor Simpson, who has held the office of President for the past five years, is succeeded by Professor Grainger Stewart, and Dr. P. A. Young becomes treasurer in succession to Dr. Pringle, who has retired after holding the post for twelve years. The report deals with the medical mission carried on under the auspices of the Society in Agra, Damascus, and Nazareth, all of which are in a satisfactory and progressive condition. The work at the Cowgate Dispensary continues to be conducted on its former lines. As regards finance, the directors have the satisfaction of recording an increase of upwards of £500 on the ordinary subscriptions. There are at present thirty-five students connected with the Society, of whom six are ladies. In the evening a well-attended public meeting of the nature of a demonstration was held in the Synod Hall, the chair being occupied by Professor Grainger Stewart.

Death of the Treasurer of the Royal Infirmary.

Last week the Royal Infirmary of Edinburgh suffered a severe loss in the death of its treasurer and clerk, Mr. James Trayner. Mr. Trayner had been connected with the infirmary for many years and had managed its finances with great success. He was much esteemed by the managers and the staff, and his death is deeply deplored.

Small-pox in Leith.

A somewhat alarming outbreak of small-pox has occurred in Leith. The first case was heard of on Sunday week, and since then thirty-three or thirty-five cases have occurred. At first they were confined to one district of the burgh, but at the end of last week cases occurred in other districts, pointing to a pretty widespread diffusion of the infection, which is causing the health authorities much anxiety. The usual small-pox hospital accommodation is wholly taken up, and the authorities are now to utilise the cholera hospital for the reception of cases; should this be found to be insufficient steps are being taken to provide still further accommodation. The source of infection in the first case has, it is understood, not been traced. Some of the cases are of a somewhat virulent type. Arrangements have been made for gratuitous vaccination.

Influenza in Edinburgh.

For the fourth winter influenza has again appeared in the city in epidemic form. Many of the cases are comparatively slight, but some are severe, and pulmonary complications are not infrequent and have already claimed many victims.

Dec. 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Catholic University Medical School.

THE first meeting of the Medical and Scientific Society for the present session was held on Dec. 4th. Dr. C. Nixon having delivered the President's address, Dr. Coffey read a paper on Recent Views on Coagulation of the Blood, and he was followed by Mr. Roughan with one on the Chemical Constitution of Protoplasm Dr. McWeeney read a paper, accompanied by an exhibit, on a case of Thrombosis of the Superior Mesenteric Vein causing intense congestion of portion of the ileum and fatal hæmorrhage into the intestine.

Typhoid Fever in Dublin.

The epidemic of typhoid fever still continues, and during the September quarter, with the exception of diarrhœa, the most fatal zymotic disease was typhoid fever, which caused 70 deaths against an average of 29 for the third quarter of the past ten years; while during the past thirteen weeks the mortality was 96. Hopes are entertained that the carrying out of the new main drainage scheme may do much to lessen the prevalence of the disease, but most sanitarians are of opinion that it is chiefly caused by the pollution of the subsoil water, which should be lowered by pumping, especially in the water-logged area. Sir Charles Cameron, superintendent medical officer of health, has been interviewed lately respecting the causes of the outbreak of typhoid fever and other circumstances in relation thereto. He acknowledged that the death-rate in Dublin was abnormal and that a severe epidemic of typhoid fever existed at the present time. He recommended that the powers of the Public Health Department should be strengthened, for at present they possessed no arbitrary powers to enter a house unless it was occupied by more than one family, for the purpose of inspecting the place thoroughly. They could do that only after a complaint had been made or a reasonable ground of suspicion existed that it was in a defective state as regarded sanitary accommodation and drainage. They had within the last few years abolished nearly all the middens in the tenement houses, and his personal belief was that it was the old midden system that had saturated the soil with offensive organic matter. He also pointed out that during the last few years much sanitary work had been carried out by the sanitary staff; but the condition of a large number of the houses in Dublin

was so bad that it had been found impossible to remedy all the defects that had been noticed short of detenanting half the houses of the city. It being found impossible to get many of these tenement houses into proper order, it was necessary to obtain magistrates' orders to close them, and 3159 of these orders had, up to the end of 1892, been issued. As showing the difficulty of abating nuisances in Dublin, Sir Charles Cameron mentioned that there were 3159 convictions in the police-courts last year for breaches of the sanitary laws, while in Birmingham for the same period, which has a population about twice as large as that of Dublin, there had not been a single prosecution under the Sanitation Acts, save under the authority of the town clerk; Leeds also did not have a single prosecution for breach of the sanitary laws. Sir Charles Cameron is of opinion that the high death-rate in Dublin is owing to the fact that there is an abnormally large poor population in the city. He thought that the prevalence of typhoid fever was not so much owing to defective sanitary accommodation or the water-supply as to the filthy condition of the soil, and that the disease had become malarial. They had recently made six sinkings into the ground in order to ascertain the height of the underground water, and found, curiously enough, that the water came nearer to the surface in the high parts of the city than in the lower districts.

Health of Ireland: September Quarter.

The births for this quarter numbered 26,095 and the deaths 17,775, or 15·4 per 1000. The birth-rate was 0·3 over the average, and the death-rate was 0·6 over the rate for the third quarter of the year. The increase in the death-rate was in great measure due to the large mortality from diarrhœa in Dublin and Belfast. Measles, whooping-cough, and typhoid fever were prevalent in Belfast, and the latter disease in Dublin. Measles caused 243 deaths, scarlet fever 87, typhus fever 68, and whooping-cough 233 deaths. Diphtheria caused 86 deaths and typhoid fever 224, being 62, or 3·8 per cent., over the average for the corresponding quarter of the last five years. Compared with the returns of pauperism for the corresponding quarter of 1892, an increase occurred of 494 in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 1273, or 2·2 per cent., in the average number of persons on out-door relief.

Epidemics of Influenza.

Influenza is at present epidemic in various parts of Ireland, especially in Athy Union and in the surrounding districts of Carlow and Mountmellick Unions. Hundreds of cases have occurred and the mortality is not inconsiderable. The Athy Workhouse and the workhouse hospitals are filled and the boys' school is being used as a hospital, while the sheds at the fever hospital are being utilised to accommodate patients. The disease also prevails in Charleville, Fermoy, and Mallow, all in the county of Cork. In the latter place two of the medical practitioners, Dr. Greene and Mr. Creagh, are suffering from the disease.

Death of Mr. J. S. Crampton.

The death is reported at Murry Hall, Tasmania, from heart disease, of Mr. J. S Crampton, L.R.C.P., L.R.C.S.Edin., resident medical superintendent of Murry Hall Lunatic Asylum, at the age of thirty-six years.

Medical Magistrates.

The following have been placed on the Commission of the Peace:—Dr. Stephen O'Sullivan, for the city of Cork; Dr. T. F. Riordan, Dr. Henry Shaw, Dr. Wm. Jennings, for the county of Cork; Mr. John McNulty, for county Mayo; Mr. Thos. Wilson, for county Longford; and Mr. James D. Ryan, for county Wicklow.

Dr. MacCullagh, J.P., has been re-elected for the third year Mayor of Londonderry.

Dec. 5th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Cerebral Localisations and their Therapeutical Applications.

THE following case, related by M. Péan at the Academy of Medicine on Nov. 28th, illustrates the value, from an operative point of view, of a knowledge of the exact situation of motor centres. On July 14th (the *fête nationale*) a healthy girl aged four years and a half was accidentally shot in the right eye by her father, the small bullet traversing the globe and lodging in the deep parts. She was admitted to the Children's Hospital and remained there until Aug. 4th, having suffered during her stay from fever, agitation, and headache. After her return home severe right cephalalgia, occurring generally in the evening, was complained of, and there was noted in addition a gradual weakening of the sight in the left eye. Examined by M. Gillet de Grandmont on Aug. 30th, her condition was found to be as follows. There was complete blindness of the left eye, with great dilatation and immobility of the pupil, which was cloudy. Sympathetic neuritis of septic origin was diagnosed. Four subconjunctival injections of a 1 in 100 solution of corrosive sublimate sufficed to bring about absorption of the cloudiness. Gradually there was noted a reappearance of the pupillary movements, and, later, of vision. All went apparently well until Sept. 21st, when there was a resumption of the headache, vague pains were felt in all the limbs, and the left arm became paralysed. On the next day the paralysis persisted and pain was felt in the right orbit; the temperature was normal. On the 24th Dr. Ballet found that the child's intelligence was quite lucid. She complained of slight pain in the right orbital region and there was some degree of left facial paresis, with complete flaccid monoplegia of the left upper limb. The left lower limb was slightly paralysed, but the child could both stand and walk. Dr. Ballet diagnosed a lesion involving the motor centre of the upper limb—i.e., the median portions of the ascending frontal and parietal convolutions, the lesion probably consisting of a peri- or intra-cerebral abscess. Trephining was recommended. On the same day the patient was seized with an attack of Jacksonian epilepsy, the head being twisted to the left, and the left upper limb convulsed. These attacks were repeated at 1 A.M and 10 A.M. on the following day. On the 26th trephining was performed by M. Péan at the International Hospital, Lucas-Championnière's rules of measurement being followed in order to reach the motor centre for the upper limb. The periosteum having been detached, the crown of bone was excised and the dura mater incised. The pia mater having been exposed, it was found to be of the colour of wine dregs and covered with whitish arborisations. At the same time the cerebro-spinal fluid escaped, this being of a milky aspect and manifestly purulent. The surface of the cerebrum was washed with a large quantity of tepid sterilised water, which brought away with the pus some yellow membrane lining the abscess cavity. The quantity of pus that escaped was computed at 200 grammes. The convolutions were then seen to be depressed, so that between them and the dura mater the interval was much greater than in the normal state. The dura mater and the soft parts were then sutured, and a suitable dressing was applied. The day after the operation the child was gay, free from pain, and began to move the arm. A few days later the wound was found to have healed by first intention, and the arm-movements were much freer. The patient was discharged on Oct. 10th. On Oct. 25th M. Gillet de Grandmont found the general condition to be satisfactory, the functions of the upper limb having been apparently totally regained. The sight was improved to such an extent that the fingers could be counted at a distance of five metres. Since the operation there has not been the slightest return of the Jacksonian epilepsy.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Chlorides in Cancerous Diseases.

DR SCHÖPP[1] has been been investigating the excretion of chlorides by carcinomatous patients. The urine was examined in each case on several successive days. The conclusions come to are as follow:—The relation between intake and excretion of chlorides is not constant for all cases of cancer. The remarkably large decrease of excretion in some cases of cancer is chiefly dependent upon the extent of ulceration, and is caused by the large amount of chlorides contained in the discharges. The decrease is also affected by the rate of growth of the cancer, and is inversely proportional to the loss of flesh. There are no grounds for assuming a resemblance between the decrease of chlorides in cancer and that which occurs in febrile attacks.

Pathogeny of Pneumonia.

Dr. Wassermann, assistant in the Institute for Infectious

[1] Deutsche Medicinische Wochenschrift, Nos. 46 and 47.

Diseases under the direction of Professor Koch, writes[2] on the differential diagnosis of inflammatory lung affections. Pneumonia may be caused in several ways, hence the importance of a careful microscopical examination of the sputum in each case. We are acquainted, he points out, with a number of parasites capable of exciting pneumonic disturbance—Fraenkel's diplococcus, Pfeiffer's influenza bacillus, Friedländer's bacillus, streptococci, and staphylococci. In two cases of lung disease of long duration, with a temperature of the septic type, the sputum was found to contain large numbers of streptococci, but no tubercle bacilli; had it not been for the examination of the sputum the cases could easily have been taken for tuberculous disease. Dr. Wassermann controverts the commonly held opinion that the prevalence of pneumonia during epidemics of influenza is due to the effect of the attack of influenza, rendering a person more susceptible to pneumonia. In the Institute for Infectious Diseases, in cases of pneumonia with influenza, the sputum was found to contain pure cultures of influenza bacillus, and hence this pneumonia is to be regarded as being an extension of the influenza process.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Cholera Epidemic in St. Petersburg.

WITH the advent of cold weather the number of cases of cholera has considerably diminished during the past few weeks. In the seven days ending at noon on Nov. 11th (Old Style) there occurred 37 cases and 13 deaths from the disease. In the preceding period of seven days there were 44 cases and 19 deaths, and in the week before that 66 cases and 35 deaths. On Nov. 5th, for the first time since the daily bulletins began to be issued—nearly three months ago—there was not a single death from cholera in St. Petersburg. At the present time there remain under treatment 33 persons suffering from cholera.

Cholera in the Provinces.

The last returns from the provinces are also satisfactory in the sense that they show a smaller number of cases and deaths in almost every government, but the list of governments where cholera is present is still a long one. The disease is most prevalent in the Governments of Volhynia (297 cases and 121 deaths from Oct. 17th to Oct. 30th), Podolia (329 cases and 145 deaths from Oct. 10th to Oct. 23rd), Kief (212 cases and 80 deaths from Oct. 10th to Oct. 30th), Tchernigof (145 cases and 61 deaths from Oct 17th to Oct. 30th), and Kursk (107 cases and 45 deaths from Oct. 17th to Oct. 23rd).

New Publications.

It is said that the Ministry of the Interior propose to publish shortly a new journal devoted to balneology and to be called the "Balneological Review." The journal will probably be illustrated. "Praktitcheskaia Meditzina" (Practical Medicine), a monthly magazine, has just issued the first number of a weekly edition of the same journal.

St. Petersburg, Nov. 12th (Old Style)—Nov. 24th (New Style).

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Sydney Hospitals.

SYDNEY will soon be exceptionally well provided with hospitals. The Prince Alfred Hospital is a splendid building on the pavilion principle, and is fitted with every modern appliance. The Sydney Hospital is now being completed on the original plans after being left for years in an unfinished state. It will be a fine building, though not so modern perhaps in its arrangements. The other large hospital is the St. Vincent's, which is admirably managed. A new hospital was opened at the end of September—the Walker Convalescent Hospital—at Concord on the Parramatta River. The late Mr. Thomas Walker left a sum of £100,000 for the building and maintenance of this institution, which is named after him, and the trustees have erected a beautiful building, in the Italian Renaissance style, almost too palatial in character for the purpose. It will accommodate sixty-four patients only, and the expense of building and furnishing has been about £75,000. The buildings consist of a central administration block, with a pavilion containing wards on each side—one for males, the other for females. Convalescents will be admitted on a certificate by a member of the honorary medical staff, which consists of the medical superintendents of the various metropolitan hospitals, Dr. L. R. Huxtable, Dr. Dagnall Clark, Mr. E. G. Blaxland, and Dr. T. S. Kirkland.

Death of a Veteran Savant.

On Sept. 29th last a scientific man of world-wide reputation passed from our midst at the ripe age of eighty-nine. George Bennett, M.D. Glas., F.R.C.S. Eng., was one of those members of our profession who found time, in the intervals of leisure of a large practice, to prosecute the study of natural history, and contributed papers which gained him distinction in the scientific world. Among his best known works are: "Wanderings in New South Wales, Singapore, and China," "Notes on the Natural History and Habits of the Ornithorhyncus Paradoxus," "Gatherings of a Naturalist in Australia," and others. He was the first to discover the nautilus in a living state, and Professor Owen has been indebted to him for many specimens of Australian fauna. He had the esteem and respect of the profession and the public, and the urbanity of his disposition endeared him to all who knew him.

The Therapeutic Value of Carica Papaya in Cancer.

Dr. Hirschfeld of Brisbane has been experimenting as to the value of papain, the digestive ferment contained in the juice of the unripe Pawpaw apple or carica papaya. He finds that it has no effect in checking the growth of cancer, but it has marked analgesic and antiseptic properties, and he explains the latter effect by its digestive action on the bacteria and on sloughing tissue, while it cannot affect living tissue in which blood is circulating.

Obituary.

JOSEPH BRAY GILBERTSON, M.D. ABERD., M.R.C.P. EDIN., M.R.C.S. ENG.

WE announced the death of this gentleman in THE LANCET of Nov. 25th, but his career and position at the time of his lamented death demand more than a passing notice. The deceased was the son of the late Dr. John Gilbertson, who, as noted by a writer in the *Preston Herald*, did much good in his day and generation and died a comparatively young man, leaving two sons—the deceased and an elder brother, the late Alderman Gilbertson, who filled the office of coroner to which the deceased succeeded. He served his time with the late Dr. Lawrence C. Spencer, who was well known in the town and district, and was twice mayor of the borough, he curiously having served his time with Dr. John Gilbertson, the deceased's father. After leaving Preston Joseph Bray Gilbertson went to London, where he studied at St. Bartholomew's and the Middlesex Hospitals, subsequently obtaining his diplomas as M.R.C.S. Eng. and L.S.A. in 1849 and 1850 respectively. He then returned to Preston, where he had for many years a very large practice. In 1859 he took the degree of M.D. Aberd. and became a Member of the Edinburgh College of Physicians in 1878. Although he did not aspire to public life his was a very active and useful career, and he was held in the greatest respect and esteem by all his professional brethren. He was a justice of the peace for the borough as well as its coroner, and was also coroner for an important division of the county. He was an honorary physician to the Preston and County of Lancaster Royal Infirmary from its foundation in 1869, and was one of its consulting physicians at the time of his death. His funeral took place on Nov. 22nd and was largely attended. From the bench the Mayor (Mr. Holden, M.R.C.S.) expressed his regret and that of all the magistrates at the loss which they had sustained, and added: "He was held up as a model of professional honour; he was well-read and highly cultured, with the modesty and geniality of an educated gentleman." Mr. Blackhurst, on behalf of the solicitors, expressed their regret, and observed that in former years there was not a lad in the Preston Grammar School more loved and esteemed than Joseph Gilbertson. When he became a practitioner the same relations continued up to the day of his death. The adjective "proud" is generally associated with the name of Preston: it may well be proud of the name of Gilbertson.

[2] Ibid., No. 47.

WM. RHYS WILLIAMS, M.D. ST. AND., L.R.C.P. IREL., M.R.C.P. EDIN., M.R.C.S. ENG.

THE death of Dr. W. Rhys Williams, a former member of the Lunacy Commission, occurred last week at Leamington. Dr. Williams was a distinguished pupil at the Merchant Taylors' School, whence he obtained a classical exhibition to St. Thomas's Hospital in 1855. He was appointed assistant physician to Bethlem Hospital in 1863, becoming senior physician in 1866. For some years he also lectured on mental diseases at St. Thomas's Hospital, until his appointment to the Lunacy Commission, from which he retired in 1889 in consequence of ill-health. Dr. Williams was especially distinguished by his great skill in asylum administration, by his personal influence with his patients, and by his great tact and judgment in dealing with them. His sympathy and kind thoughtfulness for all under his control earned him the affection and gratitude of many who will unite with his friends in regret at his premature decease.

JAMES WILLIAMSON, M.D. ST. AND., L.R.C.S. EDIN., L.S.A.

THE life and career of this physician, whose death was announced in THE LANCET of Dec. 2nd as having taken place at the residence of his son, Mr. Herbert Williamson, surgeon, of Ludgershall, Hants, were remarkable and afford a good illustration of what energy and perseverance combined with natural ability can accomplish. Born at Perth in 1830, he began life in a Government office in Glasgow more than forty years ago, at which employment he had to work very long hours and entirely support himself, whilst at the same time he was diligently attending the various medical lectures at the Andersonian University, where he distinguished himself at the examinations and obtained many prizes. In due time he took his degree at the University of St. Andrews. During the Crimean war he succeeded in obtaining a commission in the Anglo-Ottoman army (Turkish contingent). Here, again, his great energy served him, and he rose by rapid strides. He was one of the few officers who was able to pass an examination in the Turkish language, for which he received an honorarium of £50 and promotion on the staff of the General-in-command, Sir Charles Staveley, in addition to which honour he received the Order of the Medjidieh. On his return to England he started as a general practitioner in the north of London, where for many years he had a large and thriving practice, which ten years ago he was obliged to relinquish in consequence of failing health.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ELECTION OF PRESIDENT.

AN extraordinary comitia of the College was held on Thursday, the 7th inst., the chair being taken by the Pro-President, Dr. J. E. Pollock.

The chief business was the election of a President in the room of the late Sir Andrew Clark, "pursuant to Act of Parliament 23 & 24 Vict., cap. lxvi., s. 6, and By-laws xliv. and xxix." This important matter took place after routine affairs had been transacted, the Registrar first reading the by-laws bearing on the procedure to be followed. There were 150 Fellows present.

The first ballot was inconclusive, no Fellow receiving the requisite support of two-thirds of those present at the meeting, the votes being cast as follows: Dr. S. Wilks, 45; Dr. Russell Reynolds, 43; Sir Richard Quain, 22; Dr. J. E. Pollock, 12. Besides these Sir E. Sieveking, Dr. Clifford Allbutt, and Dr. Church, each received 4 votes; Sir W. Roberts, 3 votes; Dr. Dickinson, Dr. Pavy, Sir W. Broadbent, and Sir A. Garrod, each 2 votes; and one vote was cast for Dr. W. M. Ord and Dr. de Havilland Hall respectively.

The election, therefore, lay between the two whose names stood highest on the list, and the second ballot resulted in Dr. Russell Reynolds receiving 75 votes and Dr. S. Wilks 72 votes.

The Pro-President having declared the result of the ballot, Dr Russell Reynolds was inducted into office by the Senior Censor, and having made the usual declaration he thanked the Fellows for the high honour they had conferred upon him and assured them that, although he could not fill the place of him whose loss they so deeply lamented, he would not suffer anything to stand in the way of his duty to the College.

The business transacted at the opening of the meeting comprised the reading of a letter from the members of the family of the late President, acknowledging the sympathy offered by the College at their bereavement; and of communications from the Royal College of Physicians of Edinburgh, the Royal College of Physicians of Ireland, and the Royal College of Surgeons of England conveying resolutions of condolence with the College in the death of its President.

A communication from the Local Government Board was read giving particulars of the regulations &c, which had been framed to permit of advanced medical students receiving instruction on the small-pox hospital ships as well as at the fever asylums.

A letter was read from Dr. Fraser, Dean of the Medical Faculty of Edinburgh University, giving the results of the examination for the Murchison Scholarship. There were five candidates, and the scholarship was awarded to David A. Welsh, M.B., C.M. Edin.

Permission was granted to Miss Pitcairn, a descendant of a former President of the College, to copy a portrait of Dr. Pitcairn which is in the possession of the College.

Mr. F. Mill Pellatt was thanked for his gift of photograph copies of an engraving of a portrait of Dr. Pellatt, a former President of the College.

The President, Senior Censor, Treasurer, Registrar, and Librarian were nominated by the Pro-President as delegates of the College to confer with delegates of the Society of Arts upon the adjudication of the Swiney Prize.

A letter was read from the Privy Council stating that the Government would shortly proceed to make four appointments in the sanitary service at Suez and Marseilles, and giving particulars of the appointments.

A report from the Committee of Management containing a schedule of the subjects of examination in practical physiology was read and adopted.

A report from the Conjoint Committee of the two Royal Colleges upon the Jenks Scholarship was read and adopted.

Medical News.

THE LONDON WATER-SUPPLY.—The London County Council, on the recommendation of their Parliamentary Committee, have decided to petition Parliament for leave to bring in a Bill to empower the Council to purchase or acquire, as opportunity might offer, any areas or water rights the possession of which might be regarded as valuable in the future.

THE WORTHING SEWERAGE SCHEME.—An indignation meeting of the inhabitants of the village of Lancing, about a mile and a half east of Worthing, was held on Thursday evening to protest against the discharge of the whole of the sewage of Worthing, under the new scheme, near the Lancing boundary. The objection of the villagers is that if the sewage is discharged without deodorisation Lancing "would be more fitly termed Lancing-on-Sewage than Lancing-on-Sea." The village will oppose the scheme at the Local Government Board's inquiry next week prior to the granting of permission to borrow £36,500 for the first parts of the work. At a meeting of the Worthing town council on Tuesday a private report was received from Mr. Mansergh regarding the scheme, the tenders for the initial part of the work of which he has been considering. The council decided to accept the estimate of Mr. Abram Kellett, of Willesden, who requires £14,993 7*s.* 2*d.* for the work, involving the relaying of the south-west sewer. Work will be commenced, according to contract, within three days of the receipt by the contractor of the order. Samples of the town water have recently been chemically examined, and the analyst's (Mr. Cripps') report is satisfactory in all respects—he considers it "a first-class water." Professor Klein and Mr. Cripps have samples under bacteriological examination, taken from all parts of the system, and should the present bill of health—there has not been a fresh case of enteric fever for nearly three weeks—be maintained, and the further analyses prove sasisfactory, the temporary drinking-water tanks will be done away with.

UNIVERSITY OF OXFORD.—At a congregation held on Nov. 30th the degrees B.M., B.Ch. were conferred on Mr. Wilkinson Overend, of Keble College.

THE Duchess of Teck has sent to the Children's Hospital Home, Kingston-hill, Surrey, a large parcel of warm and useful clothing from the London Needlework Guild.

THE Brighton Relief Fund for Sick and Distressed People has during the past year relieved, according to their meed, with food and money, 467 persons. The income of the society amounted to £128 7*s.* 9½*d.* and the necessary working expenses to £15 6*s.*

THE late Mr. William Potter, Q.C., whose death has just been announced, was for two years before commencing his legal studies a medical student in Dublin and Liverpool—it having been his first intention to become a surgeon. He was well and favourably known to many members of the medical profession.

CONJOINT EXAMINATIONS OF THE ROYAL COLLEGE OF SURGEONS AND APOTHECARIES' HALL OF IRELAND.—At the examinations held in November last the following gentlemen passed the final examination, and were granted their diplomas as licentiates: William Alexander Halladay Egerton, Edward Thomas Coady, and James Morris Stoker.

METROPOLITAN POLICE SURGEONS' ASSOCIATION.—The sixth annual meeting of this Association was held at the Criterion Restaurant on Nov. 30th, Mr. MacKellar, F.R.C.S., in the chair. A most satisfactory report was read and the following office-bearers were elected for the ensuing year: Mr. MacKellar, president; Mr. Phillips, treasurer; Dr. Yarrow, vice-president; and Mr. Dorin and Mr. Spurgin, secretaries. Dr. Waters, Dr. Gallie, Mr. Tytheridge, and Dr. Worthington were elected to fill the vacancies in the council.

ROYAL INSTITUTION.—The following are the lecture arrangements before Easter: Professor Dewar, six lectures (adapted to a juvenile auditory) on Air: Gaseous and Liquid; Professor Charles Stewart, nine lectures on Locomotion and Fixation in Plants and Animals; the Rev. Canon Ainger, three lectures on the Life and Genius of Swift; Mr. W. Martin Conway, three lectures on the Past and Future of Mountain Exploration; Professor Max Müller, three lectures on the Vedânta Philosophy; Professor W. H. Cummings, three lectures on English Schools of Musical Composition (with musical illustrations); the Right Hon. Lord Rayleigh, six lectures on Light, with special reference to the optical discoveries of Newton. The Friday evening meetings will begin on Jan. 19th, when a discourse will be given by Professor Dewar on Scientific Uses of Liquid Nitrogen and Air. Succeeding discourses will probably be given by Mr. A. P. Graves, Mr. T. J. Cobden-Sanderson, Professor W. F. R. Weldon, Professor Silvanus P. Thompson, Professor John G. McKendrick, Dr. W. H. White, the Right Hon. Lord Rayleigh, and other gentlemen.

THE ROYAL SOCIETY.—The anniversary meeting of this Society was held at their rooms at Burlington House on the 30th ult., when the routine business common to the occasion was gone through, after which the President (Lord Kelvin) gave the anniversary address. His lordship had to regret the loss of eleven Fellows on the home list, including the venerable Sir Richard Owen, and of two foreign Fellows, since their last yearly meeting. Reference was made to the generous gift of £2000 by Mr. Ludwig Mond by which the Catalogue Committee had been enabled not only to carry on their current work but to entertain other projects which had hitherto been beyond reach. In the Mathematical and Physical Section of the Philosophical Transactions twenty-one papers had been published, and in the Biological Section ten. Of the "Proceedings" twelve numbers had been issued, some with illustrations. At the conclusion of the address the medals were presented as follows:—The Copley Medal to Sir G. Gabriel Stokes for his researches and discoveries in physical science; a Royal Medal to Professor A. Schuster for his spectroscopic inquiries and his researches in disruptive discharge through gases and in terrestrial magnetism; a Royal Medal to Professor H. Marshall Ward for his researches into the life-history of fungi and schizomycetes; and the Davy medal to Professor J. H. van't Hoff and Dr. J. A. Le Bel in recognition of their introduction of the theory of asymmetric carbon and its use in explaining the constitution of optically active carbon compounds.

THE Duke of Saxe-Coburg and Gotha has sent a donation of £50 to the Charing-cross Hospital.

MADAME BRUISSON, the widow of a medical professor at Montpellier, is stated to have left one million and a half of francs to the Faculty of Medicine at the Montpensier University.

SUBURBAN FEVER HOSPITALS.—The local boards of Acton, Chiswick, and Hanwell have finally selected the hamlet of Perivale, near Ealing, for the purpose of erecting a joint fever hospital. Considerable local opposition to the proposal prevails.

GLASGOW WESTERN INFIRMARY.—At the annual meeting of this institution on the 30th ult., Lord Provost Bell presiding, it was stated that £30,000 would be required for the proposed extensions to the buildings. Principal Caird spoke of the desirability of a pathological museum and laboratory in connexion with such a hospital. On behalf of the Queen Margaret College Women's Medical School, the managers of the Western Infirmary have been offered £10,000 to make provision for the clinical instruction of women.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Isolation Hospitals Bill.

THE hopes of the friends of this measure have been realised. In spite of the congestion of business it has passed its remaining stages and now awaits only the Royal Assent before becoming an Act. After a good deal of parleying the House of Commons agreed to regard the Bill as a non-contentious measure, and one therefore that could be discussed after midnight. The Committee stage was taken on Monday, and although there was a large number of amendments on the notice paper it did not occupy more than a few minutes. On the following evening Sir Walter Foster moved the third reading. Several members took the opportunity of saying a few words in commendation of the Bill, but not a syllable of dissent was uttered. The general purpose of the measure is to enable county councils to promote the establishment of hospitals for the reception of patients suffering from infectious diseases. They may either act on the report of their own medical officer of health or on receipt of a petition from the local authority or a body of not less than twenty-five ratepayers. If they are satisfied that there is a *primâ facie* case for a hospital, then their duty is to direct a local inquiry, on the conclusion of which they shall either dismiss the petition or constitute a hospital district and direct an isolation hospital to be established in it. If the latter is the course adopted the next thing for the County Council to do is to form a hospital committee. To such a committee the Bill gives power to purchase or lease land and to make all necessary rules and regulations for the conduct of the hospital, and in time of epidemic to provide temporary accommodation for patients. A clause in the Bill deals specially with the training of nurses. It provides that the Hospital Committee may make arrangements for the training of nurses for attendance on patients suffering from any infectious disease, either inside or outside the hospital, and may charge for the attendance of such nurses outside the hospital: the expenses of any such nurse, after deducting any profits derived for their services, shall be establishment expenses of the hospital. It only remains to be said that the Bill does not extend to Scotland or Ireland, or to the administrative county of London, or to any county borough, or without the consent of the council of the borough to any borough containing a population of 10,000 persons, or to any borough containing a less population, without the like consent, unless the Local Government Board, by order, direct that the Bill shall apply to such borough.

HOUSE OF COMMONS.

FRIDAY, DEC. 1ST.

The Whitelead Industry.

Mr. Howell asked the Home Secretary whether his attention had been called to the case of a workman who applied to the Bethnal Green guardians for relief by reason of incapacity brought on by working in a whitelead factory, his wrists being rendered useless for work after so working for the space of six years; whether anything could further be done to lessen the unhealthy nature of such work and render whitelead factories less dangerous to the health of those employed in them; and whether the factory inspectors kept the Home Office fully informed as to the preventive measures necessary in such factories.—Mr. Asquith replied that the case referred to was one of a class which he feared was not uncommon, though happily less frequent than it used to be. With a view to ascertaining what improvements could be made in the special rules as to the whitelead industry an exhaustive inquiry had been made by a departmental committee, who had visited various works in different parts of the country and had collected a large mass of evidence. They were now preparing their report to the Secretary of

State, and he understood that it would be completed in a few days.

Suicide by the Use of Carbolic Acid.

Mr. Macdona asked the Secretary of State for the Home Department whether, in view of the increase of suicides by means of carbolic acid, he would instruct the coroners under his control to state on the certificates sent to the Home Office the name of the poison by which each suicide was effected, with a view to attracting public attention to the matter.—Mr. Asquith replied that he had considered the matter, and he did not find any sufficient reason for introducing the proposed change.

The Opium Commission.

In reference to this Commission, Mr. Macfarlane has given notice of a motion to this effect: "That it is unjust and inexpedient to charge upon the revenues of India any portion of the cost of a Commission which was neither asked for nor desired by its Government or its people."

The Health of British Troops in the United Kingdom and in India.

Mr. Campbell-Bannerman, in reply to a question put by Sir R. Temple, said that among the troops stationed in the United Kingdom venereal disease had been found, on the whole, to have diminished, though there had been a slight increase in the more serious form of the malady since the repeal of the Contagious Diseases Acts. In India, on the other hand, there had been a large increase in syphilitic diseases among the troops in the years 1889 and 1890, since which time there had been some improvement.—Mr. G. Russell, in answer to a question by Mr. A. C. Morton on the subject of the health of British troops in India, confirmed the accuracy of the statistics quoted by the hon. gentleman, by which it was shown that in 1891 there were among the British troops serving in India 1343 attacks and 380 deaths from typhoid fever. The Under Secretary of State for India added that the War Office regulations provided for half-yearly medical inspections at home and yearly ones at foreign stations. So far as he was aware the Indian Government had not thought it necessary to make any alteration in the present system. As to the abnormal amount of sickness amongst the troops in India, he would consult with the Secretary of State for India on the subject.

Loss of Life in the late Gales.

Mr. Mundella, in reply to Mr. Billson, stated that the number of lives reported up to noon on Friday as having been lost during the late tempestuous weather was 293, whilst the number of persons saved by means of the coastguard service and by other sources of rescue was 525, and of these 122 were saved by the Royal National Lifeboat Institution.

MONDAY, DEC. 4TH.

The Isolation Hospitals Bill.

In committee on this Bill, Sir M. Hicks-Beach expressed himself in favour of the measure, but thought it was hardly fair to the House that a Bill brought in by a private member should be adopted by the Government at this part of the session without previous notice. He moved to report progress, but an explanation having been given by Mr. Marjoribanks of the reason for departing from the usual practice, the motion to report progress was withdrawn, and the Bill with amendments passed through committee.

Anthrax.

Mr. Fellowes wished to know whether anthrax had not greatly increased during the past year, and whether, in view of the importance of immediate notice being given of an outbreak, so that the carcase of the affected animal might be promptly buried, the President of the Board of Agriculture was willing that permission should be given to local authorities to pay out of the local rates a certain sum to cover the cost of the animal and the expense incurred by its burial.—Mr. H. Gladstone (for Mr. Gardner) confirmed the report that anthrax had greatly increased, but said that there was no power under the present law to award compensation to owners for the loss of animals affected with the disease.

The Opium Commission.

Mr. G. Russell, in reply to a question by Mr. J. Ellis as to the desirability of the official notes of the Commission being made accessible to the public, said that the matter was one which the Government had no power to decide, as it lay entirely within the discretion of the Commission. He had been informed, however, that there was no objection on their part that the notes should be made public.

The Condition of Labourers' Cottages in Ireland.

This subject was raised by a question put to the Chief Secretary for Ireland, who, replying through Mr. Bryce, said that the attention of the Local Government Board had been called to the condition of labourers' cottages in Miltown Malbay district by some remarks made by Mr. O'Brien in his report to the Royal Commission on Labour. In May last a memorial from the labourers in that district was forwarded to the Board, but was returned in consequence of certain stipulations not having been complied with.

The Medical Staff Corps.

Mr. Campbell-Bannerman, replying to a question put by Dr. Farquharson, who wished to know whether the fourteen days' annual training in field ambulance work for the Medical Staff Corps was to be given at Aldershot or at the headquarters of military districts, said that a scheme was under consideration by which the instruction in question would be given in Great Britain and in Ireland to as many medical officers from all districts as could be spared to attend

Medical Aid for Postmen.

Mr. A. Morley, in answer to a question put by Mr. Sexton, said that in towns at which the department had a medical officer of its own rural postmen, in common with its other servants whose salaries were below a certain limit, could obtain advice and medicine on application at the medical officer's surgery; but they were not entitled to attendance at their homes unless they resided within three miles of the local post-office.

Medical Volunteers in Edinburgh.

Mr. Paul wished to know whether an application to raise a second company of the Volunteer Medical Staff Corps in Edinburgh would be favourably received, the present company being limited to the University.—Mr. Campbell-Bannerman said that under present arrangements there was no room for another company in the corps; but it was in contemplation that each Volunteer field brigade should raise a bearer company in its own district, and in that case an opportunity would be given to the citizens of Edinburgh to join that company.

TUESDAY, DEC. 5TH.

Medical Aid on Her Majesty's Ships.

Mr Macdona asked whether a sufficient staff of medical officers and attendants was borne according to the complement in Her Majesty's ships. This question was replied to by Sir U. Kay-Shuttleworth, who stated the fact to be as given in the question. The complement had, he said, been found to be equal to the performance of all the medical duties as they arose. There was no association at the disposal of the Admiralty analogous to the St. John Ambulance Association. Civil medical practitioners could be temporarily employed under the regulations and could be enrolled on short notice. With regard to nurses, the pensioners of the sick bay staff were available, being supplemented in hospital ships by ladies on the nursing staff.

Infectious Diseases in the Metropolis.

Sir Walter Foster, in reply to a question put by Mr. Cohen, mentioned the facts concerning the admissions of fever and small-pox patients during the past year. These admissions amounted in number to 16,624, being double the number admitted in any previous year. He added that by far the greatest part of the increase was in the case of scarlet fever patients, the number admitted of this class being 13,093. It was to be observed, however, that the mortality from scarlet fever in 1892 was 276 per million living, whilst the annual mortality from that disease in the decade 1861-70 was 1133 per million and in that of 1871-80 it was 600 per million. The suggestion of the hon. member would receive the consideration its importance deserved.

THURSDAY, DEC. 7TH.

The Lutterworth Vaccination Cases.

Mr. Logan addressed a number of questions to the Home Secretary with reference to these cases.—Mr. Asquith declined to give an opinion as to the regularity of the proceedings because a point of law was involved.

The Old Coldbath Fields Prison.

Mr. Pickersgill asked the Postmaster-General when Lord Playfair's Committee would visit the office at the late Coldbath Fields Prison, and whether the officials would have notice of their visit and be permitted to state personally to the committee their views as to the effect of the building on their health.—Mr. Arnold Morley replied that he was in communication with Lord Playfair on this subject, but he might say that the staff would have an opportunity of expressing their views.

BOOKS ETC. RECEIVED.

ABEL, AMBR. (ARTHUR MEINER), Leipzig.
Suggestion und Hypnose: Ein kurzes Lehrbuch für Aerzte. Von Dr. Max Hirsch. 1893. pp. 209.

ADLARD & SON, Bartholomew-close, London, E.C.
Introductory Address delivered at St. George's Hospital, Oct. 2nd, 1893, on the Centenary of John Hunter's Death. By T. Holmes. pp. 30.

ALCAN, FELIX, Paris.
Les Maladies du Soldat. Par A. Marvaud. 1894. pp. 855.
Les Centres Cérébraux de la Vision et l'Appareil Nerveux Visuel Intra-Cérébral. Par le Dr. Vialet. Avec une préface de M. le Dr. Dejerine. 1893. pp. 355.
Septième Congrès de Chirurgie. Paris, 1893. pp. 889.
Etudes de Chirurgie Médullaire. Par A. Chipault. 1894. pp. 403.
Clinique des Maladies du Système Nerveux. Par le Professeur Charcot. Tome II. 1893. pp. 474.

ALT, JOHANNES, Frankfurt-am-Main.
Die otitischen Erkrankungen des Hirns, der Hirnhaute und der Blutleiter. Von Dr. O. Körner. Mit einem Vorwort von Ernst von Bergmann. 1894. pp. 163.

BAILLIÈRE ET FILS, Paris.
La Pratique des Maladies des Enfants dans les Hôpitaux de Paris. Par Paul Lefert. 1893. pp. 285.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Aids to Otology (Second Edition of "Epitome of Ear Diseases"). By W. R. H. Stewart, F.R.C.S.E. 1893. pp. 110. Price 2s. 6d.
Aids to the Diagnosis and Treatment of Diseases of Children (Medical). By John McCaw, M.D., L.R.C.P. pp. 181. Price 3s. 6d.
A Manual of Practical Medical Electricity. By Dawson Turner, B.A., M.D., F.R.C.P. Edin., M.R.C.P. Lond. 1893. pp. 315.
A Practical Treatise on Diphtheria and its Successful Treatment. By Brownlow R. Martin, M.B. Dub. 1894. pp. 32. Price 1s. 6d.

BICKERS & SON, Leicester-square, London, and CORNISH BROS., Birmingham.
Selections from the Philosophical and Poetical Works of Constance C. W. Naden. Compiled by Emily and Edith Hughes. 1893. pp. 188.

CALDER-TURNER, F., Bathurst-street, London, W.
Cattle Tuberculosis and Tuberculous Meat. By Henry Behrend, M.R.C.P. Edin., M.R.C.S. Eng. 1893. pp. 112.

CASSELL & CO., London.
Diseases of the Skin. An Outline of the Principles and Practice of Dermatology. By Malcolm Morris. Illustrated. 1894.

CHURCHILL, J. & A., New Burlington-street, London.
Year Book of Pharmacy, 1893. With the Transactions of the British Pharmaceutical Conference held August, 1893. pp. 516.
A Dictionary of Medical Science. By Robley Dunglison, M.D., LL.D., and Richard J. Dunglison, A.M., M.D. Twenty-first edition. 1893. pp. 1181. Price 30s.

GRIFFIN, CHAS., & CO., Exeter-street, Strand, London.

The Hygienic Prevention of Consumption. By J. Edward Squire, M.D. Lond. 1893. pp. 194.

HIRSCHWALD, AUGUST, Berlin.

Der Morbus Gravesii (sogenannter Morbus Basedowii). Von Dr. P. Mannheim. 1894. Mit 2 Tafeln. pp. 156.

KEGAN PAUL, TRENCH, TRÜBNER & CO., Charing-cross-road, London.

A Text-book of Physiological Chemistry. By Olof Hammarsten. Authorised translation from the second Swedish edition and from the author's enlarged German edition. By John A. Mandel. First edition. First thousand. 1893. pp. 511.

The Dispersal of Shells. An inquiry into the Means of Dispersal possessed by Freshwater and Land Mollusca. By H. W. Kew, F.Z.S., with a preface by A. R. Wallace, LL.D., F.R.S. Illustrated. 1893. pp. 291. Price 5s.

MACMILLAN & CO., London.

A Theory of Development and Heredity. By Henry B. Orr, Ph.D. 1893. pp. 255. Price 6s. net.

METHUEN & CO., Bury-street, London, W.C.

Two Little Children and Ching. By Edith E. Cuthell. 1894. pp. 224.

The Icelander's Sword, or The Story of Oraefa-dal. By S. Baring Gould. 1894. pp. 220.

Toddleben's Hero: A Story of the Camel Corps. By M. M. Blake. Illustrated. 1893. pp. 192.

PENTLAND, YOUNG J., Edinburgh.

Atlas of the Diseases of the Skin. Illustrated from original drawings with descriptive letterpress. By H. R. Crocker, M.D., F.R.C.P.

SAUNDERS, W. B., Philadelphia.

Outlines of Obstetrics. A Syllabus of Lectures delivered at the Long Island College Hospital. By G. Jewett, A.M., M.D. Edited by Harold F. Jewett, M.D. 1894. pp. 264.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Paris.

Étude de Physiologie Artistique faites au moyen de la Chromo-photographie. Par MM. E. J. Marey et G. Demeny. Première Série, No. 1, Des Mouvements de l'Homme. Tous droits réservés. 1893.

Guide Sanitaire des Troupes et du Colon aux Colonies. Par le Dr. Villedary. 1893. pp. 178.

STOCK, ELLIOT, 62, Paternoster-row, London.

Weather Lore. A Collection of Proverbs, Sayings and Rules concerning the Weather. Compiled by Richard Inwards, F.R.A.S. 1893. pp. 190.

SWAN SONNENSCHEIN, Paternoster-square, London.

Suicide and Insanity. A Physiological and Sociological Study. By S. A. K. Strahan, M.D. 1893. pp. 228.

THE SCIENTIFIC PRESS, 428, Strand, London, W.C.

Myxœdema, and the Effects of Climate on the Disease. By A. Marcus Wilson, M.D., L.R.C.P. Lond., M.R.C.S. 1894. pp. 36. Price 2s.

A Practical Handbook of Midwifery. By F. W. Nicol Haultain, M.D., F.R.C.P.E. Illustrated. 1894. pp. 248.

THIEME, GEORG, Leipzig.

Die Schwankungen der Reizzustands-Grösse, d. i. der Intensität, bezüglich des Umfangs des Lebens im Menschlichen Körper. Experimental-Untersuchungen von Dr. K. Francke. 1893.

Smith's Physicians' and Surgeons' Visiting List for 1894; forty-eighth year, No. 3 edition (Hazell, Watson and Viney, London.)—De la Méningite Tuberculeuse chez l'Enfant: par le Docteur E. Schouil (de Troyes) (Société d'Éditions Scientifiques, Paris, 1894).—Brain: A Journal of Neurology; part 63, autumn, 1893 (Macmillan & Co., London), price 3s. 6d.—Revue des Livres; Chirurgie des Voies Urinaires: Études Cliniques par le Dr. E. Loumeau; reprint (G. Gounouilhou, Bordeaux).—Diphtheria and other Membranous Affections of the Throat, by Francis H. Williams, M.D. (Boston), reprint.—The American Journal of the Medical Sciences, November, 1893.—Revue de Chirurgie; No. 11, Nov. 10th, 1893 (F. Alcan, Paris).—Archiv für Experimentelle Pathologie und Pharmakologie: redigirt von Dr. B. Naunyn und Dr. O. Schmiedeberg, Nov. 14th, 1893 (F. C. W. Vogel, Leipzig).—Archives Cliniques de Bordeaux, paraissant tous les mois; No. 11, November, 1893 (Feret et Fils, Bordeaux, and O. Doin, Paris).—Przeglad Chirurgiczny, tome 1, 1893 (K. Kowalewskiego, Warszawa).—The Royal Natural History: edited by Richard Lydekker, B.A., F.G.S., F.Z.S., vol. 1, part 1 (Frederick Warne & Co., Bedford-street, Strand, London), price 1s. net.—The Modern Review; Nov. 15th, 1893, No. 2, vol. 3 (Bouverie-street, London, E.C.), price 6d.—On the Increase of Insanity: by W. J. Corbet; reprint from the American Journal of Insanity, October, 1893 (Utica, N.Y.).—The Antipodean: edited by G. E. Evans and J. T. Ryan (Chatto & Windus, Piccadilly, London, W., 1893).—Edinburgh Medical School Calendar and Guide to Students, 1893-94 (E. & S. Livingstone, Edinburgh), price 2s.—On the alleged Increase of Cancer: by Geo. King, F.I.A., F.F.A., and A. Newsholme, M.D., M.R.C.P.; reprint from the Proceedings of the Royal Society; vol. 54.—The Perennial Visiting List for Physicians and Surgeons (A. Stenhouse, Glasgow), price 1s. 6d.—Metropolitan Asylums Board; reports for the year 1892; seventh year of issue (McCorquodale & Co., London, 1893.)—Annual Report of the Health Officer of the Port of New York for the year 1892 (J. B. Lyon, Albany, 1893).—Shipowners and Ship Surgeons; including Truth's article, Aug. 24th, 1893, "Doctors at Sea," by Charles H. Leet, F.R.C.S. Seaforth, Liverpool, 1893), price 1d.—Excelsior; being the Quarterly Magazine of James Murray's Royal Asylum, Perth, October, 1893, vol. iii. (James Young & Sons, Perth).—Thérapeutique Journalière: par G. J. Smith; Maladies Internes et Maladies des Enfants (J. B. Baillière et Fils, Paris, 1893).—The Cottager's Manual of Poultry Keeping, by W. B. Tegetmeier, F.Z.S. (Horace Cox, Bream's-buildings, London, E.C., 1893), price 6d.—A few New and Original Ideas for the Consideration of the Political, Professional, Agricultural, Manufacturing and Labouring Classes: by George Davis (Marshall, Christchurch, Hants).—The Phrenological Magazine; December, 1893, illustrated (L. N. Fowler & Co., Ludgate-circus, London, E.C.), price 6d.—The Phrenological Annual and Register for 1894, illustrated (L. N. Fowler & Co., London, E.C.), price 6d.—Annales de Dermatologie et de Syphiligraphie, Troisième Série, tome 4, No. 11, Novembre, 1893 (G. Masson, Paris).—Transactions of the American Otological Society; twenty-sixth annual meeting, New London, Conn., July 18th, 1893, vol. 5, part 3 (Mercury Publishing Company, New Bedford, Mass., 1893).—Magazines for December: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRAY, P. D., M.R.C.S. Eng., has been appointed Health Officer for the Borough of Carlsbrook, Victoria, Australia, vice Miller, resigned.

COLMAN, WALTER S., M.B. Lond., M.R.C.P., M.R.C.S., has been appointed Assistant Physician to the Hospital for Sick Children, Great Ormond-street, London.

CONNOR, SAMUEL, M.D., Ch.B. Irel., M.D., Ch.B. Melb., has been appointed Health Officer for the Wannon Shire, Nareen Riding Victoria, Australia, vice Gandevia, resigned.

CUTCLIFFE, MONTAGU, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator to the third or North Taunton District of the Okehampton Union.

DAVIES, D. S., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health to the Bristol Port Sanitary Authority.

ETCHES, W. R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Macclesfield.

GREEN, C. D., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H., has been re-appointed Medical Officer of Health for Edmonton.

HOWARD, F. R., L.D.S.R.C.S., has been reappointed Honorary Assistant Dental Surgeon to the Birmingham Dental Hospital.

JONES, CHARLES STURGES, M.R.C.S., has been reappointed Medical Officer of Health for Chichester.

LACK, H. LAMBERT, M.B. Lond., F.R.C.S. Eng., has been appointed Assistant Physician to the Hospital for Diseases of the Throat, Golden-square, W.

LAVERICK, J. T. B., M.B., M.S., D.P.H. Glasg., has been appointed Medical Officer for the Rural Sanitary District of Whitby.

LOCKWOOD, H., M.R.C.S., has been appointed Surgeon to the Sheffield Public Hospital and Dispensary, vice Thorpe.

MADIN, W. T., L.D.S.F.P.S. Glasg., L.D.S.R.C.S. Eng., has been re-appointed Honorary Assistant Dental Surgeon to the Birmingham Dental Hospital.

MILLETT, GEO. B., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Penzance Town Council.

MITCHELL, H. ST JOHN, L.R.C.P. Edin., L.M., L.F.P.S. Glasg., has been appointed Health Officer for the Castle Donnington Shire, Victoria, Australia.

MOLINEUX, JAS., M.D. St. And., M.R.C.S., L.M., has been reappointed Medical Officer for the Hessle Sanitary District of the Sculcoates Union.

MOUNTFORD, JAS., L.D.S.R.C.S. Eng., has been reappointed Honorary Assistant Dental Surgeon to the Birmingham Dental Hospital.

NADEN, P. T., L.D.S.F.P.S. Glasg., has been reappointed Honorary Assistant Dental Surgeon to the Birmingham Dental Hospital.

PARKER, CHARLES A., has been appointed Hon. Assistant Surgeon to the Hospital for Diseases of the Throat, Golden-square, W.

POMFRET, H. W., M.D. Vict., L.R.C.P. Lond., F.R.C.S., has been reappointed Medical Officer to the Hollingworth Local Board.

SAWREY, E. E. R., M.B., Ch.B. Melb., has been appointed a Medical Officer to the Women's Hospital, Victoria, Australia, vice Long, resigned.

SIMPSON, JAS., M.D. Irel., L.F.P.S. Glasg., has been appointed, *pro. tem.*, Medical Officer and Public Vaccinator to the Galgorm Dispensary District, vice Courtenay.

SIBLEY, W. KNOWSLEY, M.A., M.D., B.C., M.R.C.P., has been reappointed Clinical Assistant in the Skin Department, Middlesex Hospital.

THORPE, G. F. K., M.R.C.S., has been appointed Honorary Consulting Surgeon to the Sheffield Public Hospital and Dispensary.

TURNER, C. BYRON, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Grimsby and District Hospital.

WATT, NEISH PARK, M.A., M.B., C.M. Edin., has been appointed House Surgeon to Gray's Hospital, Elgin.

WETWAN, W. A., M.R.C.S., has been reappointed Medical Officer of Health for the Bridlington Sanitary District.

WIGGINS, CHAS., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Bexhill Urban Sanitary District.

WILSON, THOS., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Wallsend.

WOOD, J. C., L.R.C.P., L.R.C.S., D.P.H. Edin., has been re-appointed Medical Officer of Health for the Borough of Sunderland.

WOODS, HERBERT HUNTER, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed House Physician to Charing-cross Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer. Salary £50.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London, W.—Resident Medical Officer. Salary £50 per annum, with board and lodging.

MANCHESTER ROYAL INFIRMARY.—Junior Administrator of Anæsthetics (non-resident) for twelve months. Salary £50 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—House Surgeon, for six months. Salary at the rate of £60 per annum.

NORFOLK AND NORWICH HOSPITAL.—Assistant to the House Surgeon, for six months. Board, lodging, and washing provided.

ROYAL FREE HOSPITAL, Gray's-inn-road, W.C.—Resident Medical Officer (House Surgeon) for six months. Board, residence and washing provided.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, London.—Assistant Lecturer in Obstetric Medicine.

THE DENTAL HOSPITAL OF LONDON, Leicester-square.—Dental Surgeon.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Physician to the in-patients. Honorarium £50 per annum, and board and lodging in the Hospital provided.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Surgeon to the in-patients. Honorarium £50 per annum, and board and lodging in the hospital provided.

WALLASEY DISPENSARY.—House Surgeon, unmarried. Salary £140 per annum, with furnished house, coal and gas.

WESTMINSTER GENERAL DISPENSARY, Gerrard-street, Soho, W.—Resident Medical Officer for one year.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician for six months. Board and lodging provided.

Births, Marriages and Deaths.

BIRTHS.

ANDRÉ.—On Dec. 1st, the wife of J. E. F. André, M.R.C.S., L.R.C.P., of a daughter.

COWPER.—On Nov. 30th, at Havelock House, Shanklin, I.W., the wife of John Cowper, M.B., of a son.

POWELL.—On Dec. 2nd, at The Bays, Norwich-road, Forest-gate, Essex, the wife of Henry Christoffers Powell, Surgeon, of a daughter.

THOMSON.—On Nov. 29th, the wife of Arthur Thomson, M.B., Stratford-on-Avon, prematurely, of a son (stillborn).

THOMSON.—On Dec. 4th, at 243, Queen's-road, New Cross-gate, S.E., the wife of David Thomson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., of a daughter.

MARRIAGES.

ADAMS—BREWER.—On the 2nd inst., at St. Andrew's Church, Watford, Webster Adams, M.R.C.S., of Ipswich, to Jessie Marian, daughter of Alfred Brewer, of Lyndhurst, Watford, Herts.

LATTER—BEECHEY.—On Nov. 30th, at Ripley, Yorkshire, Cecil Latter, M.B. Cantab., of 10, Earl's-avenue, Folkestone, to Ruth, only child of the late William Innes Beechey, of Ripley.

NUTTALL—PEEL.—On Nov. 15th, at the Parish Church of St Mary, Bury, Lancashire, by the Rev. A. Anderton, Rector of St. John's, Miles Platting, Manchester, Frank Nuttall, L.R.C.P. and S. Edin., &c., Blackburn, Lancashire, to Lillie, elder daughter of the late Henry Peel of Highfield, Bury.

WIGHT—DENNY.—On Nov. 28th, at Helensiee, Dumbarton, Surgeon-Captain E. O. Wight, son of the late Robert Wight, M.D., F.R.S., of H.E.I.C.S., to Janet Lealie, youngest daughter of Peter Denny, Esq., LL.D.

YOUEL—GOLDSMITH.—On the 1st inst., at St. Marylebone Parish Church, Sidney Herbert Youel, Surgeon R.N., H.M.S. Mistletoe, to Emma, daughter of the late Henry Phillipps Goldsmith, of Blackheath.

DEATHS.

BEHREND.—On Nov. 29th, at his residence, 26, Norfolk crescent, Hyde-park, Henry Behrend, M.R.C.P., M.R.C.S., aged 65.

CRAMPTON.—Recently, at New Norfolk, Tasmania, J. S. Crampton, L.R.C.P., L.R.C.S. Edin.

SMITH.—On Dec. 2nd, Herbert Arthur Smith, M.R.C.S. Lond., L.R.C.P. Eng., of 1, Clifton-villas, High-road, Chiswick, aged 28 years.

VOLATTI.—On Nov. 22nd, at Radford Villa, Little Sutton, Cheshire, Mary Ann Forsyth, wife of Dr. W. J. Volatti (late Surgeon, R.N.).

WILLIAMS.—On Nov. 28th, at Milverton-terrace, Leamington, William Rhys Williams, M.D., late Commissioner in Lunacy, and formerly Resident Physician, Bethlehem Royal Hospital, aged 56.

WEGG.—On Dec. 3rd, at 15, Hertford-street, Mayfair, William Wegg, M.D. Cantab.

WILSON.—On Nov. 29th, Walter Wilson, F.R.C.S., of 7, Eaton-gardens, Ealing, in his 78th year.

WOLLASTON.—On the 1st inst., at 48, Prince's-road, Liverpool, Thomas G. Wollaston, M.D. St. And., M.R.C.S., aged 56 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 7th, 1893.

		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec.	1	29·71	N.E.	40	40	44	41	39	·12	Raining
,,	2	30·40	N.	29	..	51	36	28	·04	Bright
,,	3	30·47	N.W.	26	..	41	41	24	..	Bright
,,	4	30·25	S.W.	44	41	51	49	26	—	Foggy
,,	5	30·33	N.E.	42	41	50	45	40	—	Overcast
,,	6	30·15	S.W.	44	43	58	51	40	—	Overcast
,,	7	29·71	S.W.	48	48	70	50	42	.02	Overcast

Medical Diary for the ensuing Week.

Monday, December 11.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 2 P.M.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

ROYAL EYE HOSPITAL, SOUTHWARK.—Hour of attendance, 2 P.M., and other days at the same hour. Operations daily.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.)—5.30 P.M. Dr. Morgan Dockrell: Ringworm.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bland Sutton: Specimen of a Leg after Miculicz's Operation.—Dr. Herbert Spencer: A First Series of Fifty Ovariotomies—a Plea for the Performance of Ovariotomy by Obstetric Physicians.

Tuesday, December 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Skin Department, 1.45; Saturday, 9.15.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Henry Hugh Clutton: Arthrectomy of Elbow and Ankle (a number of patients will be shown).—Mr. Jonathan Hutchinson, jun.: Abdominal Section for Intestinal Obstruction due to Multiple Hydatid Cysts; recovery.

Wednesday, December 13.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Thursdays and Fridays at the same hour.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square).—5 P.M. Clinical cases will be shown by Mr. R. Lake, Dr. Felix Semon, Dr. Scanes Spicer, Dr. Dundas Grant, and Dr. MacNeill Whistler. Specimens &c. by Dr. A. Bronner, Dr. Watson Williams and Mr. Charles Parker. Dr. Kirk Duncanson: A Clinical Note on a Case.

HUNTERIAN SOCIETY.—8.30 P.M., Pathological Evening. Dr. Charlewood Turner: Two Specimens of Intussusception, Ileo-cæcal and Ileo-colic.—Dr. Fred. J. Smith: (1) Perihepatitis: (2) Bacillus of Leprosy. Dr. Arnold Chaplin: Aortic Stenosis.—Dr. Hingston Fox: Cerebral Arteries from a case of Subdural Hæmorrhage.—Dr. Hadley: Specimens.

Thursday, December 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.
NORTH-WEST LONDON HOSPITAL (Kentish Town-rd.).—Operations, 3 P.M.
HARVEIAN SOCIETY.—8.30 P.M. Prof. Corfield: Disease and Defective House Sanitation.

Friday, December 15.

UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

Saturday, December 16.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 9.15 A.M.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

THE HARD CASE OF MR. SODEN: A SECOND APPEAL.

WE noticed on April 15th the hard case of Mr. Soden of Swansea, who was held responsible in damages for an alleged error of his locum tenens in prescribing for one of his patients. The damages awarded were not large, but the whole expenses reach about £250, and the result of an appeal for help to the profession in his neighbourhood has yielded less than £30. We cannot but feel much for Mr. Soden in this matter, and would commend his case to the wider sympathy of the profession. The real lesson of such cases is that every medical man should be connected with one or other of the societies for the protection of medical men from such actions or the costs of them; but this lesson is only now being slowly learned by the profession. We shall be happy to be the medium of announcing any contributions to the fund.

Mr. S. Allan Shiach.—If the child was dead when admitted to the infirmary, a fee cannot be recovered either for making a post-mortem examination or for giving evidence at the inquest.

THE TITLE OF "DOCTOR."

To the Editors of THE LANCET.

SIRS,—To my mind it is very unfortunate that the writer of the letter—published in THE LANCET of Dec. 2nd under the above heading—did not more carefully consider his remarks before sending them to THE LANCET for publication. In the first place I quite fail to understand what possible satisfaction could be derived by anyone from seeing the name of the university mentioned of which any particular medical man was a graduate. None but his *confrères* could appreciate it; the laity would be more puzzled than ever, especially with such a title as M.D.R.U.I. set forth upon a brass plate. Your correspondent is undoubtedly justified in estimating highly his "L.R.C.P. Lond., M.R.C.S. Eng., &c.," as thoroughly good qualifications. Nobody doubts it; but are there no other universities in the United Kingdom whose "M.D." is worth taking besides that of one of the three mentioned by your correspondent? Are not the degrees of Durham, of Edinburgh, or of Dublin worth acquiring? Are no graduates but those of London, Oxford, or Cambridge worthy of any consideration? The assumption should never be expressed, for the sake of common politeness. I also have the "L.R.C.P. Lond., M.R.C.S. Eng.," and if by the "&c." is meant the "L.S.A." I have that "&c."; yet I sink all these out of consideration for my M.D. Durh., which took more time and energy to acquire than all the others. There is a grievance, however, which your correspondent has overlooked, but it does not rest with the "graduates." It rests with the holders of a "licence" which entitles them to style themselves "Doctors," and which has been taken with the object of throwing dust in the eyes of the public: upon these only should the stigma be cast and not upon *bonâ-fide* M.D.'s.

I am, Sirs, yours faithfully,

Dec. 4th, 1893. M.D.

To the Editors of THE LANCET.

SIRS,—Even while agreeing with the purpose of the letter signed "L.R.C.P. Lond., M.R.C.S. Eng., &c.," one cannot but smile at that gentleman's contempt for all qualifications and degrees granted north of Cambridge. In provincial England a man seems to be rated by the common people according to the number of "letters in his title," so that the qualification of the Conjoint Board, if written in the manner your correspondent adopts, may give a Licentiate an unfair advantage over a plain M.D. In the London correspondence of the daily papers here we are occasionally informed that "another distinction has gone to Liverpool"—namely, that Mr. ——, one of her student sons, has passed in some single subject for the licence of the Royal Colleges. At first I thought it was mild sarcasm, but it seems not to be so, and when I consider the painful fact of men crawling through their Final, one subject at a time, I am thankful to be able to sign myself, Sirs,

Yours truly,

Dec. 4th, 1893. M.B. EDIN.

THE USE OF CHLOROBROM IN INSOMNIA.

To the Editors of THE LANCET.

SIRS,—In a case of delirium tremens which I came across recently I found the usual great difficulty in inducing sleep. I tried, firstly, bromide of potassium in 40-grain doses, combined with 5-grain doses of chloral, without the slightest appreciable effect. I increased the dose of both drugs, and again without effect. Sulphonal in 60-grain doses was tried; then I gave hypodermic injections of morphia (six minims). This certainly soothed the patient, but was of no use as far as the sleeplessness was concerned. The case was now assuming a serious aspect, and in my difficulty I tried chlorobrom. I gave the patient an ounce and a half, and in half an hour he had fallen asleep. He slept soundly for two hours, and when he awoke I was again sent for and administered one tablespoonful more. In the course of a very short time he again fell asleep, and slept soundly for five hours. When he awoke the delirium had almost entirely passed away. The next day chlorobrom was again administered, not as a hypnotic, but simply to soothe the nervous system, with most satisfactory results. I think this solution is not widely enough known in the profession; but I feel certain that in cases of insomnia and delirium tremens, as a hypnotic agent, it stands pre-eminent.—I am, Sirs, yours faithfully,

Glasgow, Dec. 4th, 1893. ROBERT B. LOTHIAN, M.B., C.M.

"LOCOMOTOR ATAXY TREATED BY PHOSPHATIC INJECTIONS."

To the Editors of THE LANCET.

SIRS,—Kindly add this as a P.S. to my letter on the above subject.

With regard to the remarks of Dr. J. Macnamara, which appear in THE LANCET of Dec. 2nd, in which he says, "He implies, but he does not say, that Sir Andrew Clark pronounced the case as one of locomotor ataxy," I beg to state that I have the certificate signed by Sir Andrew Clark before me, dated July 1st, 1893, in which he says: "Of course, the tabes will not be cured." Again, I have that signed by the physician in Brussels, who saw the case with me previously to the injections. Dr. Cuylets, late President of the Physiological Society of Medicine of Brussels and secretary of the Academy of Medicine of Belgium, writes as follows: "Le soussigné certifie que M. —— est atteinte d'ataxie locomotive." He also writes in September, stating that he has completely recovered and is a most remarkable case. This latter is endorsed by myself.

I am, Sirs, yours faithfully,

FORBES WINSLOW.

Devonshire-street, Portland-place, Dec. 6th, 1893.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

To the Editors of THE LANCET.

SIRS,—I am investigating the Mattei remedies for cancer and the cures for drunkenness emanating from the same source—viz., Mr. Gliddon, 14, Pall Mall East, S.W. I shall therefore be very greatly obliged to any of the readers of THE LANCET who can furnish me with the names and addresses of persons who have taken these remedies and any details as to such cases. In the interests of medical science and the medical profession it is of the utmost importance that the claims of these much-advertised cures for various diseases should be thoroughly sifted. Communications should be addressed "Dr. Hugh Woods, 11, Archway-road, Highgate, London, N."

I am, Sirs, yours faithfully,

HUGH WOODS,
Hon. Sec., London and Counties Medical Protection Society.

Dec. 2nd, 1893.

COAL SMOKE AND LONDON FOG.

IN reference to the report of THE LANCET Special Analytical Sanitary Commission on Smoke Prevention and Perfect Combustion, a correspondent writes as follows:—"That we should have reached the end of November without experiencing a single yellow fog in London can hardly pass without remark. Such freedom from one of the chief banes of the metropolis would have given rise to much comment in any year; but in the present case it cannot be claimed that we have been free from all the circumstances which are commonly and causally related with the production of fog. There have been cold east winds, river mists, and anti-cyclones in plenty; yet we have been able to breathe comfortably, to go about without the aid of artificial light, and to enjoy a certain amount of cleanliness. To assume at once that this beneficial change from the common order of things is entirely due to the reduction in the consumption of coal would perhaps be too hasty; but the coincidence of a clearer atmosphere in the face of the usual meteorological concomitants of a London fog with circumstances which have greatly reduced the ordinary combustion of coal is significant enough."

Expectans.—Dr. B. should have accepted without hesitation Dr. C.'s representations and thanks. There is nothing better for the profession than the hearty helping of each other by its members in circumstances of emergency. At the same time this inadvertence scarcely seemed to call for a general meeting of the profession. The more quietly errors of conduct are corrected the better.

"WANTED A DIAGNOSIS."

To the Editors of THE LANCET.

SIRS,—In reading over the account of my case under the above heading I was surprised to find that I had omitted some points of great importance in the history. The patient never to his knowledge had by accident stepped on anything that might possibly have entered his foot—in fact, there is a complete absence of traumatism of any nature whatsoever. Nothing is to be felt (needle, for instance) beneath the skin, and there is nothing now to indicate a former punctured wound over the heel. A fortnight ago I advised him to see a consultant as to the advisability of an exploratory incision being made, but he (the patient) has not done so. For some reason or other the posterior tibial artery is seen beating under the internal malleolus most distinctly, whilst the corresponding vessel on the other side can only be felt, not seen. The symptoms of pain on pressure &c. are most suggestive of a foreign body embedded in the heel; but the absence of any history pointing to it, and the facts that nothing can be felt, and that no inflammatory symptoms are present, together with the abnormal pulsation of the artery above referred to, and the gradual increase in severity of the symptoms, lead me to think that some more serious trouble exists. I should be glad if any of my professional brethren could throw some light on the case in respect to diagnosis and treatment.

I am, Sirs, yours faithfully,

Dec. 3rd, 1893. J. GRIMSHAW.

To the Editors of THE LANCET.

SIRS,—In reference to Mr. Grimshaw's difficulty with regard to diagnosis in the case described by him I beg to say that I should be inclined to believe that the pain is gouty in origin, and would advise salicylate of soda, iodide of potassium and colchicum, internally, and a lotion locally of a saturated solution of a lithium salt.

I am, Sirs, yours truly.

Dec. 4th, 1893. FRED. J. SMITH.

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W. M. B. (Bath).—We consider that our correspondent has a genuine cause of complaint, but feel certain that he will recognise that his grievance could not be ventilated in our columns without laying our motives open to misconstruction.

X. Y. Z.—Such specialisations on a door-plate will be in very bad taste.

THE MEDICAL AND PHARMACEUTICAL PROFESSIONS IN ITALY.

OFFICIAL returns for 1892 give 19,120 as the number of general practitioners (*medico-chirurgi*) in the Italian peninsula and 10,942 as the number of pharmacists provided with matriculation certificates and diplomas. Besides these there are 172 pharmacists possessing the inferior qualification, known as the "bassa matricola," which has descended from the Pontifical government, and there are also 1392 pharmacists' assistants. Out of 100,000 inhabitants there are on an average in Italy 62 general practitioners (*medico-chirurgi*) and 36 matriculated pharmacists. Of the 19,120 general practitioners the University of Naples is represented by 7038 who have taken her degree. In the other Continental States the general practitioners and pharmacists are much fewer in proportion to population than in Italy. Indeed, while Italy has 36 pharmacists per 100,000 of her inhabitants, the German Empire has but 13·3; Prussia, 11·9; Bavaria, 15·5; and Austria, 9·3. Surely this ought to make the Italian Government pause in its proposed augmentation of the number of pharmacists—an augmentation to be effected, it seems, by lowering the standard of qualification. Again, while Italy has 62 general practitioners per 100,000 of her inhabitants, the proportion in the German Empire is 43; in the Kingdom of Prussia, 32; in Bavaria, 35; in France, 39; in Austria, 36; in the Netherlands, 41; and in Sweden, 17. Yet again the number of students enrolled in the Italian medical schools is exceptionally large. In the last *annus medicus* (1892 93) there were 6576 students matriculated for the entire medico-chirurgical curriculum, 1520 matriculated for the pharmaceutical course, and 130 who graduated as doctors in medicine and pharmacy.

"DISINFECTING THE DOCTOR"—A PLEA FOR THE PIPE.

To the Editors of THE LANCET.

SIRS,—In the interesting discussion and correspondence about "Puerperal Septicæmia" Dr. Barnes very wisely lays great stress on the importance of a medical man disinfecting his breath as well as his hands, and that he should, as a general rule, not drive about to see his patients in a close carriage, nor wear gloves in the summer, &c. &c. He, however, omits one important item—"a quiet smoke." Depend upon it, there is nothing like an occasional pipe (or cigarette), or even a pageant cigar, for disinfecting the breath and destroying disease germs, to say nothing of a pipe soothing one's irritated nerves, especially at such a time as the present, when one is in attendance on so very many cases of this so-called, or rather *mis*called, "influenza."

I remain, Sirs, yours truly,

W. L'HEUREUX BLENKARNE,
Surgeon to the Leicester Provident Dispensary.

Humberstone-road, Leicester, Dec. 4th, 1893.

MEDICAL DEFENCE UNION (LIMITED).

To the Editors of THE LANCET.

SIRS,—May I ask through the columns of THE LANCET that any information which medical practitioners can produce relating to the presence and practice in their neighbourhoods of herbalists falsely using the title "M.D." or "Dr." may be sent to me as quickly as possible? Such information must, of course, not be marked "Private" or "Confidential."

I am, Sirs, yours faithfully,

64, Longridge-road, S.W., Dec. 2nd, 1893. A. G. BATEMAN.

"TREATMENT OF FUNCTIONAL APHONIA."

To the Editors of THE LANCET.

SIRS,—I find that I was under a wrong impression in the case of aphonia concerning which I wrote in answer to your correspondent, "Perplexed," and that the relief gained by hypnotism, though perfect for a time, was only temporary.

I am, Sirs, yours faithfully,

December, 1893. W. BIRTWHISTLE.

COMMUNICATIONS not noticed in our present issue shall receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Folkestone Express, Scarborough Post, Liverpool Daily Courier, Sheffield Daily Telegraph, Birmingham Daily Post, Glasgow Evening News, Cork Constitution, Kentish Observer, Birmingham Daily Gazette, Liverpool Daily Post, Galignani Messenger, Sussex Daily News, Leeds Mercury, Manchester Courier, Yorkshire Post, Bristol Mercury, Irish Times, Wolverhampton Chronicle, Scotsman, Sanitary Record, City Press, Reading Mercury, West Middlesex Standard, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Scottish Leader, Oldham Daily Standard, Hertfordshire Mercury, Guy's Hospital Gazette, Surrey Advertiser, West Middlesex Advertiser, Public Opinion, Observer and Chronicle (Bournemouth), Globe, Echo, Daily News, Spectator, Civil and Military Gazette (Lahore), Local Government Journal, Architect, Sunday Times, Builder, Times of India, Pioneer Mail, Australian Medical Journal, Derbyshire Times, Journal of Gas Lighting, Water Supply, &c., New York Herald, Otago Daily Times, &c. &c.*

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